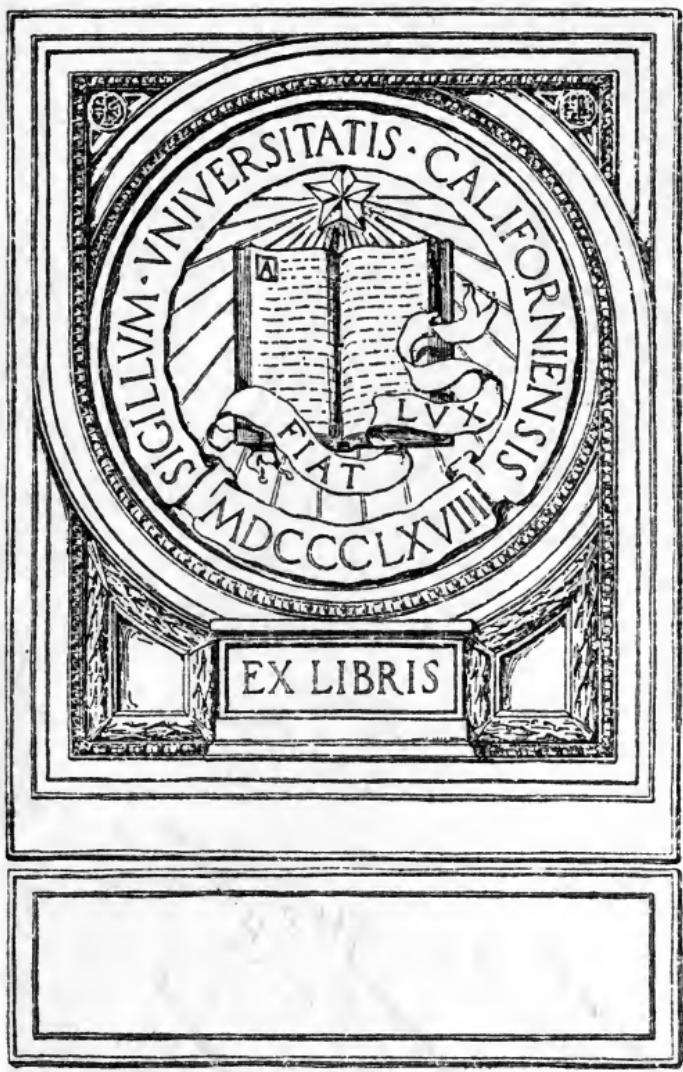


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THE BABY
A MOTHER'S BOOK BY A MOTHER
BY A UNIVERSITY WOMAN



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INTRODUCTION

THAT a child's first years, and especially the first year, are most important needs no proof. While a baby's lungs, in spite of the fact that they are called upon literally at a moment's notice to perform a new and vital function, generally give little trouble, the processes of digestion and consequent nutrition do not seem to become thoroughly accustomed to their life-work until the second birthday is within sight. Even when the baby has grown into the habit of taking its milk without rejecting part of it, there still looms ahead that troublesome period when it must be taught to take solid food. But by the time this stage is reached, the child has taken a firm grip of life; and while its further development needs care, there is little cause of anxiety.

It is before the baby has reached this stage that it has to encounter the greatest difficulties. The danger of death decreases with every month of a baby's life during the first year. During this period the number of deaths is so high as to be nearly half of the total number of deaths from all causes. Happily, this mortality is now fast decreasing.

The aim of this little book is to show that the care of a baby and of very young children does not necessitate anything more than the observance of simple precautions. The writer is a University woman who has had three children with very short intervals between them. The eldest is now 4 years and 3 months old, the next 2 years and 10 months, and the youngest 13 months.¹ Neither father nor mother

¹ A careful reader will discover, by a comparison between this age and that cited on page 43, that the writing of this book has occupied several months.

is exceptionally strong ; yet the children have never once been confined to the house, much less their beds. Judging by weight and mental development, all are slightly above the average. The youngest, now 26 lb. in weight, is just beginning to walk, and has a small repertoire of accomplishments.

It has already been pointed out that the children could not have inherited an exceptional physique, and neither have they been brought up in luxury. But certain simple precautions (which will be described in the following pages) have been taken. Two or three useful books were obtained, and their suggestions were adopted or rejected after the parents had discussed them.

One other point may be noted. Hard manual labour the mother has never done ; but during the last four and a half years she has written an historical biography, edited one of the classics of literature with an historical introduction, and reviewed about a hundred (mostly) scholarly historical works for one of the critical reviews. This means that almost the whole time has been occupied with hard brainwork in addition to housekeeping, which a servant and a nurse do not obviate. Manual work, provided it is not too hard, is probably much better for both mother and child than brainwork. It follows that what this mother has done there are very few who could not do also ; and it is to show the steps by which children may pass through their most critical years well and healthily that this book has been undertaken. It has been written for use, and hence the index has been made to include all the ordinary ailments of childhood, so that how to treat convulsions, for instance, may be found in a moment.

THE BABY

CHAPTER I

A BABY'S FIRST DAYS

Food.—If it is at all possible, every mother should suckle her child; and this course will dispose of a host of dangers and difficulties. Even the greatest care can hardly compensate for the lack of natural feeding; and the cases where it has not been followed have produced such an impression on me, that I would sacrifice anything before or after birth to be able to feed my child. The child should always be put to the breast a few hours after labour, though if, as is generally the case, there is no milk or a small quantity, little anxiety need be felt for the first few days. If a mother can feed her child, the only precaution she must take is to be careful always to cleanse the nipple before the child is put to feed. A tiny piece of old linen dipped in warm sterilised water (*i.e.* water which has been boiled for from 15 to 20 minutes) is all that is necessary for this, though occasionally it may be well to dissolve a few crystals of boracic acid in the water. The child's mouth should be cleansed in the same way before feeding, though not with the same piece of linen. Cotton-wool is a good substitute for linen and can be readily obtained. The linen should not be used twice.

A mother should first see that she has milk before putting the child to the breast. This can readily be

done by gently squeezing the breast, when the milk will be pressed out. If the nipples have been prepared for some weeks before birth by bathing them in water to which a few drops of eau-de-Cologne or whisky have been added, there will be little danger of sore breasts.

If the mother on the third day has no milk or a very small supply, one or more bottles must be given. From the third day for the rest of the month the child should be fed every two hours during the day, and should have a meal if it wakes in the middle of the night. The best bottle, to my mind, is the Allenbury feeder, which is marked in ounces and has a teat at one end and a rubber valve at the other. The teat should be turned inside out, and both teat and valve should be thoroughly cleansed after use. The bottle should be rinsed in cold water, and then bottle, teat, and valve should be placed in a basin of sterilised water and covered to keep out the air and dust. Or, better still, the bottle may be scalded immediately before use. Most bottles will stand boiling, but they invariably crack if allowed to remain in boiling water too long, or if put suddenly into boiling water. I have found it a good plan to immerse the bottle in water which has "just gone off" the boil, before putting the food into it, scalding the teat and valve at the same time.

As I have fed all my babies, the last only for five months, I have no practical experience of the milk mixture for the first months. But the following is a suitable recipe, being in the later months what I have used, and in the earlier modified from the later.¹ I have substituted Demerara sugar for milk sugar, as I found this beneficial with my own children. It is

¹ I find on consulting other recipes that this is a mean between those weakest and those strongest in milk.

more easily obtainable, and has a slightly moving effect on the bowels:—

*First two weeks*¹—

Milk, 1 tablespoon.
Water, 3 tablespoons.
Lime-water, 2 teaspoons.
Cream, $\frac{1}{2}$ teaspoon.
Sugar, $\frac{1}{2}$ teaspoon.
One-half of this to a meal.

Second two weeks—

Every two hours—

Milk, 1 tablespoon.
Water, 3 tablespoons.
Lime-water, 2 teaspoons.
Cream, 1 teaspoon.
Sugar, $\frac{1}{2}$ to 1 teaspoon.

This makes 2 oz., and the meal should increase from $\frac{1}{2}$ to $1\frac{1}{2}$ oz.

Fifth and sixth weeks—

Milk, 2 tablespoons.
Water, 3 tablespoons.
Lime-water, 2 teaspoons.
Cream, 1 teaspoon.
Sugar, 1 teaspoon.

This makes 3 oz., and the meal should increase from one-half to the whole of it.

Seventh and eighth weeks—

Milk, 3 tablespoons.
Water, 4 tablespoons.
Lime-water, 2 teaspoons.
Cream, 1 teaspoon.
Sugar, 1 teaspoon.
Makes 4 oz. Increase meal from 3 oz. to whole.

Ninth week to twenty-first week—

Milk,² 4 tablespoons.
Oatmeal- or barley-water, $3\frac{1}{2}$ tablespoons.
Lime-water, 2 teaspoons.
Cream, 1 teaspoon.
Sugar, 1 teaspoon.

Makes 4 oz. Meal 4 to 6 oz.

Twenty-second week to twenty-eighth week—

Milk, 8 tablespoons.
Oatmeal- or barley-water, 4 tablespoons.
Lime-water, 1 tablespoon.
Cream, 1 teaspoon.
Sugar, $1\frac{1}{2}$ teaspoons.
Makes nearly 7 oz. Meal, 6 to 7 oz.

Last four months of year—

Milk, 12 tablespoons.
Oatmeal- or barley-water,
3 tablespoons.
Lime-water, 1 tablespoon.
Cream, 1 teaspoon.
Sugar, 2 teaspoons.
Makes 8 oz. Meal, 7 to 8 oz.

The ingredients should be mixed, the sugar dissolved into the milk and lime-water, and then the whole should be boiled for about 20 minutes. Sufficient can be

¹ The feeding intervals during the second and third months should be gradually increased to three hours.

² See p. 34.

made for three bottles at once. The mixture should be boiled in a double pan, when no attention is required and there is no danger of burning. The inside pan should be kept scrupulously clean and used for no other purpose. When the mixture has been boiled sufficiently long, throw the boiling water in the lower pan out and fill it with cold water. In a few minutes change this water for fresh cold water. By cooling rapidly in this way no skin forms and the cream of the milk is not lost. Where it is available, cooling on ice is the ideal method. A small jug can readily be found which will just hold the amount of one bottle. This should be well scalded with sterilised water before using (the water from the bottom of the pan will do), and then the milk from the pan can be poured into the jug and thence into the bottle. If sufficient milk has been boiled for several bottles, the rest should now be poured into a basin, which has been washed out thoroughly with sterilised water, and kept covered in a cool place.

To obviate the trouble of measuring so many tablespoonfuls, these may be measured once (for say three bottles, or whatever number is being prepared) and a tumbler, cup, or jug which they just fill, or fill so many times, can be found. It will be only necessary for the future to fill the jug or cup.

The prepared milk only requires warming for the next bottle ; but the jug from which it is poured into the bottle must be washed with sterilised water each time. It is best to stand the jug in boiling or very hot water for some minutes, not, as is frequently done, "heating up" in a small pan and pouring again into the jug. The milk should be of sufficient heat to feel warm (not hot) when the bottle is held against the

cheek. Or it may be tasted by pouring a little into a spoon. A *cold* bottle may produce very serious effects on the digestive organs of a young baby. The mother should not suck the teat or dip her finger or any spoon (unless scalded with boiling water) into the milk. All these are really the provisions of common sense. It would be folly if, after carefully sterilising the milk (*i.e.* killing all the bacteria in it), the teat, and the valve, the mother should then place her finger or a spoon, each teeming with bacterial life, into the milk, or cover the teat with bacteria from her own mouth.

An excellent sterilisation apparatus is made by Mr. T. Hawksley of 357 Oxford Street, which may be had in two sizes.

Fig. 1 shows a very convenient size, in which the bottle may be either of 1-pint size (with thermometer, syphon, and extra bottle), at 10s. 6d. (1s. extra, post free); or 1½-pint size—the more convenient, at 12s. 6d. (1s. extra, post free). If only three meals are to be prepared at once, this should be all that is necessary for the whole of the first year. It can be used on a gas-stove or fire and the temperature should be maintained at 155° F. for 20 minutes. Such an apparatus minimises much of the labour of sterilisation. The apparatus shown in Fig. 2 can be had with two bottles for use with a fire, gas-stove, or spirit lamps. This size, with thermometer, syphon, spirit lamps, and one extra bottle, can be had for 25s. (1s. extra, post free). Sixty ounces of milk preparation can be prepared at once, and the apparatus will thus prepare a whole day's food, where it is necessary to do this, at once, even to the end of the year. It is also useful, indeed almost necessary, where there are twins or two young babies to cater for.

A Baby's Day.—A baby commences its day between 6.30 and 7 A.M. About that time it generally becomes hungry, and manifests this in characteristically baby fashion by bellowing. The child's mouth should be cleansed and the mother's nipples, and then it should be fed. Generally one breast will suffice, and the mother should remember at which breast it fed last, and give

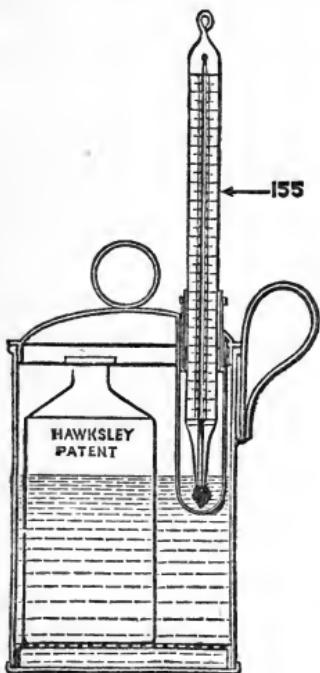


FIG. 1.

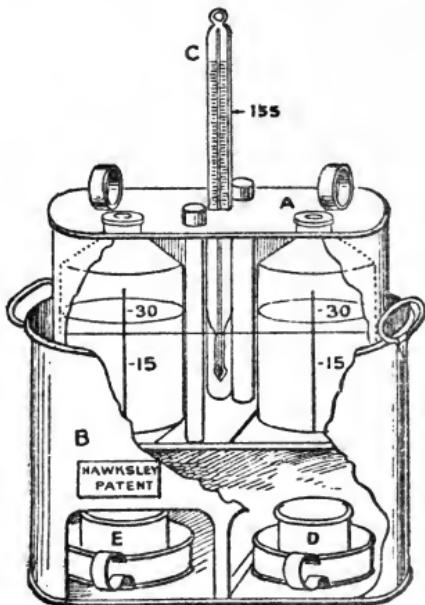


FIG. 2.

them alternately. The mother, if in bed, should lay the child on its side in her arm, and, half-lying on her own side, should offer the breast. Some judgment must be used as to how long the baby should feed. If it has been steadily feeding at the breast for about 10 minutes, it has presumably had sufficient, even if it should cry when removed. A mother can easily tell if her milk is coming readily, and this will help her to judge when enough has been obtained. Excess, however, is better

than too little, as the baby will only reject what it does not require immediately afterwards.

The child should be sat up after a meal, care being taken to support the back firmly with one hand held flat against it. If this is attended to for a few moments after each meal, there will be less trouble with flatulence afterwards. When the mother has thus given the baby the opportunity to get rid of "wind," she should lay it flat in its cot, when it will probably go off to sleep again.

The mother can now get her breakfast and prepare for the baby's bath. This should take place in a warm room—though no one consults a baby's health who attempts to shut out air from it at any time. A chair should be used sufficiently low to allow the mother to sit in it comfortably with her feet firmly and easily resting on the ground. On a chair near by, the bath—a galvanised iron, porcelain, enamel, or earthenware vessel of sufficient size to allow the baby to lie at full length—should be placed, and the water should be comfortably warm to the hand. Within reach should be the baby's basket, with a needle ready threaded, safety pins, soft brush, vaseline or lanoline, a soap-dish containing some plain soap like Gibb's White Windsor; and the baby's sponge, powder-box containing starch, powder, and puff, and a cup containing sterilised water in which a few crystals of boracic acid have been dissolved, and a small piece of old linen should be at hand. On a stool or chair within reach also should be placed the baby's day clothes; a piece of flannel about 6 or 8 inches wide and 1 yard in length to be used as a binder, a small wool vest with long arms, a long sleeveless flannel made to wrap well over the chest and sufficiently long to fold up over the

feet,¹ the child's overall, a simple long linen frock with a check string at the neck, woollen shoes (if thought necessary; I have never used them), and one or two napkins, preferably of bath towelling. A soft face-towel and a large bath-towel should be thrown over the arm of the chair.

When all is ready, about $1\frac{1}{2}$ to 2 hours from the last meal, *i.e.* about 9 A.M., the baby may be taken up. Even a baby of a few days feels pleasure in finding itself free of clothes and in front of the fire, "kicking;" it may be allowed to luxuriate for a few moments on the nurse's lap. When the business of the bath begins, it should be performed quickly, so as to decrease the fatigue for the child. Lying on the thicker towel on the outspread lap of the nurse, it should first have its face washed and dried, and then be washed with a soaped sponge from head to foot, each limb and "crease" being washed in a regular order. Then it should be lifted gently and not too suddenly into the bath, its head and back supported by the left hand and arm, while the nurse "rinses" it thoroughly with a dripping sponge. It is better not to use soap for the face. Normally, water will be found sufficient throughout childhood. Where the skin seems to require something more, oatmeal is at once soothing and cleansing. In bathing a new-born infant, great care and gentleness must be used with regard to the navel cord. The nurse "dresses" this with a piece of linen, or, better still, a piece of boracic lint, when the infant is first bathed, and each day, for the few days it continues to adhere, a new dressing is applied, being kept in place

¹ Weldon's Ltd., 30 and 31 Southampton Street, Strand, publish suitable patterns at 7d., post free. No. 32,940 is a good long-clothes set.

by the "binder." Water should not be allowed to touch it, and therefore, until the cord detaches itself, the baby should be merely "sponged," and not put into the bath. In a period of from five to eleven days it will detach itself naturally, and no effort should be made to assist it, however ready it may seem to come away. It should leave a dry surface. Should there be any "oozing" the doctor should be consulted.

When the baby is removed from the bath, he should be laid again on the nurse's lap and quickly dried. The soft "face" towel will best serve the purpose, the "bath" towel acting more as a wrap. The limbs and creases of the flesh must be thoroughly dried without much friction, as the infant's skin is very tender. Great care should be taken to rinse and dry the head thoroughly, as otherwise "dry skin" will very soon appear to disfigure the child. Many young mothers are timorous in handling their babies, but a baby's head will stand a good firm "rub." It will be possible to dry the child while still lying on its back, and it should then immediately be "powdered," *i.e.* lightly dusted over with starch powder. Very little is required, and some doctors are against any powdering; but it is easier to keep an infant perfectly free from "sorenness" if the groins at least are thus dusted over. It will not be found necessary to use the powder every time the napkin is changed. Thorough drying of the legs and groins at such times is, however, important. When powdered, the baby should be turned over on the nurse's lap—a position almost invariably pleasing to it. The towel being removed, it is now resting on the flannel apron which she should wear and under which she may, with advantage, have another of fine "mackintosh." The flannel binder is easily adjusted in this

position, passing almost twice round the baby's body from the front and left loose enough to allow the hand to pass between it and the body. A few slip stitches up the back is a good way of fastening it, and obviates the need of one or more probably uncomfortable safety pins. A Jaeger woollen belt requiring no fastening may be used instead. The little woollen vest should be put on next. A good form is one opening down the front and with long sleeves. The arms should always be inserted into these in a "forward" position, the vest being stretched to reach the second hand, which should not be drawn back to meet the sleeve. The napkin may next be laid in position without being tucked up, the aim being to place all the garments in position while the baby is still on its face, and then when it has been turned on its back again, to fasten them rapidly. The long "flannel" can be partly adjusted, the arms being put through the armholes, and then the child may be turned over. There remains the long frock, which can be easily slipped over the head and arms and fastened at the neck without disturbing the child from its recumbent position.

The baby's mouth should now be washed with tepid (boiled) water or occasionally with weak boracic solution, and the child should then have a meal and the mouth be washed again. It will normally sleep until its next meal time, and after the first week or two there is no reason why it should not lie out of doors in its perambulator, unless it is actually raining or there is an east wind. It should, of course, be warmly covered, though the face should be left free so that breathing is easy. A hot-water bottle for its feet is invaluable. If the child is restless, a change of position will often set it at ease. It should always be laid on its side, which is in

fact the position an older child in a healthy condition naturally adopts.

During the first few weeks the child should practically sleep from meal to meal. During the third month it will generally begin to remain awake from seven to ten in the morning and from four o'clock until its evening bath. Later the sleeping time will gradually decrease, but a long morning sleep should be the rule even on into the fourth and fifth years. At about nine months the baby will generally begin to resist an afternoon sleep, which it no longer as a rule requires. The young infant will generally awake for its third meal at midday, and should be fed and laid down again, after, of course, some little relaxation, such as kicking before the fire after its meal, which suggests itself naturally to the mother. It will then sleep again until about 2 P.M., and then with another meal until 4 P.M. After the third month, when the meals are given at three-hourly intervals, the child often sleeps right on until one o'clock and again until 4 P.M.

Regularity of feeding is of immense importance, but I doubt the advisability of rousing a child from sleep to take a meal. Even at the first, should a child sleep on past its meal hour, some elasticity may be allowed. Two meals may be spaced into the time usually allowed for three. Much more important is the rule not to give a meal *before* the time because the child is fretful or restless. The cause is often indigestion, which the meal only further aggravates. It is a great temptation to a busy mother to quieten her infant thus, but the solace is only for a few moments, and immediate pain, possibly also a more lasting injury to the digestive organs, is the result for the child.

At about 6.30 the evening bath may be given in the

same manner as in the morning, though the child should have a complete change of clothing—the night clothes being similar to the day garments for a young baby. Where washing is a consideration, it is a good plan to use the long frock which has been worn in the day for a nightgown, and thus with the use of only seven gowns a week, the baby can have a clean frock each day, which is the minimum necessary if it is to be clean. So long as the under garments are changed for the night, the child will be sufficiently refreshed and comfortable. Some mothers and doctors advise only a "sponging" and change of clothes at night, because of the fatigue to the child, but I doubt whether there is much difference in this matter, and the actual "dip" is always refreshing. When children are older, the evening bath is even more important than the morning, as the normal child accumulates a fair amount of "dirt" at its play. The morning bath may then be reduced to a mere sponging and dip without soap, while a "good scrub" can be given at night.

After its bath and meal the baby should be placed in its cradle or cot in a bedroom with only a night light, and left to sleep until 10 or 10.30, when it should be again "changed" and "fed." After this it will often sleep through the night, though in the first two months it will generally demand a meal in the small hours. This is not very tiresome if the mother is "nursing" the baby, as she can give it its meal while she is lying down, and, changing it quickly, put it back in its cot beside her. It is this meal with artificially fed children that has sometimes been given cold with very serious results. With a methylated spirit lamp the food is easily heated, or a thermos flask may be used with advantage. Long after this meal has ceased to be

necessary, some babies will wake in the middle of the night, and the mother or nurse will naturally change the napkin and lay the child again comfortably in its cot. There is often a temptation to allow the infant to nestle on the mother's arm and stay in her bed, but it is a false policy. Apart from the danger of overlying, and the certainty of the baby inhaling the mother's breath, the habit is not easily broken, and a vigorous child of a year or eighteen months is not the most comfortable of bedfellows.

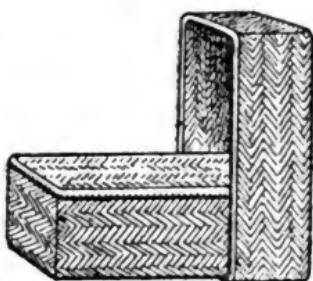


FIG. 3.—Basket as Cradle.

It is necessary to say a word about the baby's bassinet or cot. While most mothers, from sentimental reasons, prefer trimmed cots, it may be said at the outset that the elaborately trimmed cot is merely a dust trap; and in many ways a simple bassinet without trimming is much healthier. A simple screen drawn round it will keep off any harmful draughts and excess of light, and the baby has a much better current of air. If, however, a mother prefers a trimmed bassinet, it is much wiser to arrange the trimming so that it can readily be taken off and washed.

For a simple bassinet perhaps there is nothing better than one of the Japanese travelling baskets. The two pieces should be comfortably lined with quilted

sateen or some good washing material, and while one serves as the bed, the other can be placed over the end to act as a shade and a screen. This improvised bassinet has also the advantage of being very light and easily moved about; and again, if travelling has to be done, it will form a receptacle for the baby's wardrobe.

There are also the basket and metal cots. These are generally trimmed with pink or blue sateen covered with white muslin and lace or with a simple covering of some pretty, light-coloured, washing material. The cot must also be raised above the ground on a steady stand. It is best to have it the height of the mother's bed.

A well-made wicker bassinet costs from 3s. 6d. and upwards, and a stand 5s. or 6s. extra, while the metal cots swung on a stand can be had for 10s. and upwards.

When the child is about six months old it may be advisable to remove it to a larger cot. These may be had fairly cheaply to take to pieces. The wooden ones I have used have a spring or wire foundation, with high sides, which can be swung over. This facilitates attending to the child. These cots are also very light, pack up easily, and can be used until the child is four or five years of age.

CHAPTER II

EARLY DEVELOPMENT

A **HEALTHY** infant grows rapidly in weight and activity, and the weekly weighing of a young child is almost the best test of its progress. Every baby should have its "weight chart" (Chap. V), and mother and nurse should take infinite pains to discover the cause of the child's failing to increase in weight in any week or still more of its "losing." The average weight of a boy baby at birth is about $7\frac{1}{4}$ lb.; of a girl, a little under 7 lb.; but some babies weigh as much as 10 lb. or more at birth and many less than 7 lb. During the first few days there is generally a slight loss of weight, as the child takes little nourishment, and also because of the expulsion of "meconium" from the bowels. After this the gain should be steady. During the first and second months the child should gain in each week from 5 to 6 oz., in the third and fourth months 4 to 5 oz. each week, and the fifth and sixth months from 3 to 4 oz. weekly. The weekly increase after this will be slightly smaller. The average weight of a boy 1 year old is 21 lb., of a girl a little under 20 lb. Much depends, of course, on the initial weight. There may be occasional fallings off due to such trivial operations as circumcision or vaccination.

It is advisable for all boys to be circumcised, for reasons of health and cleanliness, and the earlier this is done the better, provided the child is strong enough

to bear an anæsthetic or the slight shock of the operation. Many doctors apply a "dressing" after circumcision, but a small hollow sponge soaked in boracic solution and kept in place merely by the napkin is really the most soothing method of treatment. A baby need really feel no discomfort at all from the operation. Similarly, a vaccinated arm requires no dressing, but should merely be protected by a piece of boracic lint wrapped loosely round it. The earlier vaccination is performed also the better, as the young infant moves its limbs less and feels little if any pain. The arm should be freely rinsed with water during the bath, but soap should not be applied. Many babies are now vaccinated during their first month.

As a baby increases in weight it grows more vigorous. In the third month it will kick with zest and coo and smile in answer to a caress. Some children seem to give an answering smile even from the first, but it is an unmistakable sign of recognition by the third month. The baby can now be laid on a bed and allowed to exercise its limbs freely; but soon, when it begins to "roll," it is safer to lay it on a rug on the floor, well screened from draughts. Where this is difficult it is better to sacrifice some exercise for safety. The child generally enjoys lying on an out-spread lap. It should never, of course, be "sat-up" to support, even partially, its own weight. In the third or fourth months it will be able to hold its head up, if its back is well supported, but an infant should spend the greater part of its first year on its back. When out of doors it should not be propped up in its perambulator until it is quite strong in the back (about the sixth month), and then only for a short time. The four-wheeled perambulator, allowing the baby to lie full length, is the only

good form in the first year. If a child is accustomed to lie, it will not as a rule resist in this matter. Children will often accept the lying position as the natural one for their "airing" until the ninth or tenth month. It is generally at this time that a baby can really sit up without assistance, and it can then be bathed in a bathroom and handled more or less like an older child.

Before this, often in the seventh month, it begins to "creep." Sometimes it begins by a curious snake-like dragging motion forward across the floor, moving almost imperceptibly, but it soon rises on "all-fours" and can get about at an enormous rate; and now generally begin the nurse's troubles. Every dangerous article should be removed from the nursery, and if there are older children they should be taught not to throw beads, or such articles as the infant might swallow, on to the floor. Children can be made wonderfully careful when they know there is real danger. The coal-box will generally find its way out of the nursery or be placed inside the "guard," a necessary piece of furniture for any room in which children habitually move about or play. It must be remembered that with all young children absolute and constant vigilance is necessary to preserve them from accident. Windows of the "French" sort should be barred. The ordinary windows opening upwards and downwards should never be left open more than an inch or two at the bottom,¹ for fear of the older children leaning out when the nurse's back is turned. It should be strictly forbidden to climb on chairs to obtain anything from the mantelpiece. Medicines and lotions should never be left within children's reach. Even the most model children

¹ Unless barred. Almost any man who is handy can make stout wooden bars and screw them on to the sides of the windows.

have occasional "freakish" fits, when they will dare anything. It is useless to try to prevent a child of three or four years from climbing, but the nurse should be watchful, and children as a rule take notice of a word of caution.

Soon after the crawling stage is reached, the baby will begin to stand, holding on to some article of furniture. It is well at this time to stretch a net or webbing (my nurse made a quite suitable net by knotting ordinary stout string, and no doubt this would be quite easy to a handy man) over its cot for fear it should, when no one is in the room, lean over the side when it wakes, and fall—an accident which may prove fatal. Similarly, the child should not be left to sleep out-of-doors without some strap or contrivance which will prevent its leaning out of the perambulator when it wakes. A good plan is to place the perambulator in such a position that the mother or nurse can "keep an eye" on it while she writes or works.

At about a year the child can generally walk round the room holding on to the furniture. Some children can actually walk alone at eleven months old, but this is rare. Fifteen months is the average age for independent walking, and there is no cause for anxiety if an apparently healthy child does not walk at eighteen months, though it is strong presumptive evidence of backwardness in mental or physical development, and if the child does not walk soon after eighteen months it is safer to consult a doctor. A child will walk when it is "ready," but should not be encouraged to do so prematurely, much less forced to take walks out of doors as soon as it can "toddle." The joints are loose even in the third year, and a child of 2 or 3 years of age is not fit for long walks. A small "mail" or

“push” cart can with advantage replace the perambulator at this stage. In holding a child’s hand care should be taken that its arm is not unduly stretched, and it should never be lifted off its feet by an older person holding its hands. A child’s upper limbs are easily dislocated. A child of 2 can generally walk up and down stairs alone but someone should be near it, and a child of nearly 3 should be taught to hold the balustrade and step carefully.

A great event in the first year is the appearance of teeth. They generally appear in pairs, and the first pair, the lower incisors, are sometimes “cut” as early as the fourth or fifth month, but more generally when the child is seven or eight months old. After this the teeth appear at more or less regular intervals until the first set of twenty, the “milk” teeth, is complete at about 2½ years of age. “Teething” need not be a very troublesome process. Often the first teeth come quite unnoticed, and some children give no trouble whatever in the matter. As a rule, however, the child will be a little restless or “below par” for a day or two before a new tooth appears. The gums may be red, swollen, and painful, but the more acute discomfort is generally from indigestion or some irregularity in the action of the bowels, which marks the slightly abnormal condition of the child at the time. The “tooth” rashes which sometimes appear are generally due to digestive disturbance and not to any occult action of teething. There is a danger of some real defect of diet or treatment being overlooked through the attribution of its consequences to “teething.” The infant will often lose its appetite at “teething” times, and it is foolish to try to force it to finish a bottle when it has manifestly had enough. A child’s instinct is

often very sure in these matters. Special attention should be paid at these times to the action of the bowels, though dosing with "teething powders" is often injurious, especially if, as is often the case, they contain opium.

The order in which the teeth appear is generally as follows :—

- (1) The two lower central incisors in the seventh or eighth month.
- (2) The four upper incisors between the eighth and tenth months.
- (3) The lower lateral incisors and the upper and lower front molars between the twelfth and fourteenth months.
- (4) The eye teeth between the eighteenth and twentieth months.
- (5) The back molars between the age of 2 and $2\frac{1}{2}$ years.

From the first the greatest care must be taken of the mouth and teeth. The "washing" of the mouth should be continued at least in the morning and evening until the child is old enough to use a tooth-brush. The washing before and after each meal is not necessary after the first few months when the flow of saliva has increased and the milk particles no longer remain on the gums and inside the cheeks. A child of 2 can very well have its teeth brushed, though it takes some time to learn to "rinse" its mouth and not swallow the water. As soon as it has acquired this art it is best to supplement the tepid (boiled) water by some simple and safe chalk powder, as the teeth even of small children tend to become coated and yellow otherwise. The condition of this first set of teeth should be as carefully watched as the permanent set which

normally replaces them at about the age of seven years. This is important both immediately for the digestion and because the condition of the first set of teeth seems to affect that of the second. When possible regular visits should be made to the dentist for inspection and, if necessary, treatment. Every child should, of course, be taught to make good use of its teeth in the mastication of food.

It has frequently been said that the use of a "comforter" tends to disfigure the teeth, but there is no proof of this or of the many other evils often attributed to this habit. Where a mother finds it possible, it is perhaps advisable to dispense with this rather troublesome and not ornamental aid. Where it is used the greatest care should be taken to keep it thoroughly clean. It should be scalded or boiled at least once a day, and never given to the child before being washed after it has fallen to the ground. It is in the hands of a careless mother or nurse that the thing may become really harmful.

When the child has reached the age of three months it is customary to discard the long clothes and use ordinary short baby clothes descending to a little below the knee. The time, however, is elastic, though it is harmful to postpone the "shortening" too late, as the baby's limbs are hampered. But it is a wise precaution not to be too anxious to discard the long clothes if the weather is very cold, and the woollen or flannel binder should be worn until the end of the second year unless the woolly vest is long enough to come well down over the abdomen.

When the child begins to crawl, sometimes "crawlers," long divided overalls, are used. They serve to keep the child clean and warm; but, naturally, grow very dirty

themselves. If the nursery is kept thoroughly clean, a point upon which a mother should insist, it is just as clean and more convenient for a baby to crawl about in its ordinary short clothes.

Where it is possible, a room with a southern aspect should be set apart for the nursery. It should be of a good size with large windows (barred, of course), with a fireplace shut in by a strong guard, which it should be impossible for a child to move. One that covers the grate right over is the best. It is a convenience,

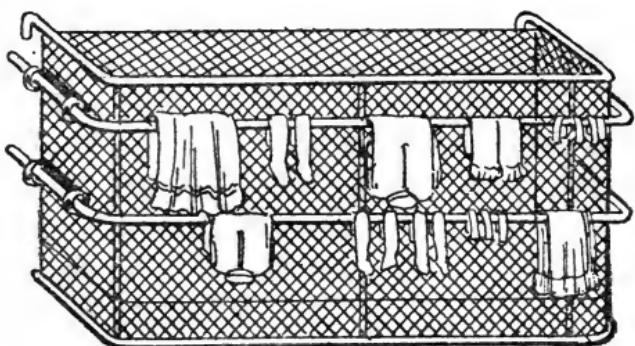


FIG. 4.—Nursery Fire-Guard.

too, to have a rail on the outside on which the baby's towels and small articles of clothing can be hung to warm or dry.

The walls should be washable throughout—distemper, enamel paint, or varnished paper are all suitable coverings. A light simple colour or design is best. If variety is desired, a simple coloured frieze with a few figures of animals, birds, or flowers, &c., may be added. There might also be a few good pictures on the walls, of objects that will interest children. Pictures must not be hung too high, but must not be within reach of a baby.

The best floor covering is cork carpet, as it is warm

and washable and very durable. Uncovered floors are not good, unless of a real parquet covering, as splinters are apt to come off the wood, and carpets are not hygienic.

As for furniture, the less there is the better, and what there is should be of the simplest description. It must be of a kind that is easily washed and cleaned, with as few sharp angles as possible, and arranged so as to leave open floor space for the children to have a full clear run in which to exercise their limbs. A good steady table for meals, a few chairs, a low chair for

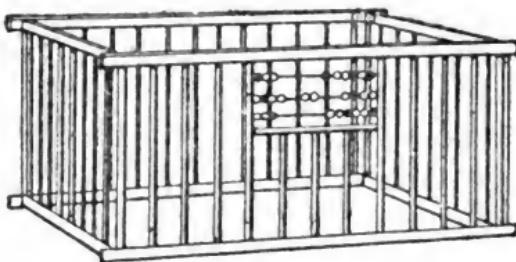


FIG. 5.—Play-Pen.

the nurse, a roomy cupboard, a toy-cupboard, a low kindergarten table with a little chair for each child are the principal articles required.

The cupboard may be placed over the mantelpiece on iron brackets, and divided into compartments. If meals are taken in the nursery, this will hold the children's special china, table linen, and so forth, and sewing materials. It may also be used to hold simple remedies, the weighing machine for the baby, clinical thermometer, more expensive toys and books, &c. Painted in white enamel such a cupboard is not at all unsightly, and the weighing chart can be fixed to the outside of one of the wooden doors and thus kept ever in mind.

Another cupboard within a child's reach, should be set apart for toys in everyday use. The children should be accustomed to putting aside their toys after play, a very useful disciplinary measure.

One of the most useful of all articles of furniture in a nursery is a playing-pen in which a small child can be put to crawl about and play without any danger of its hurting itself. Such a pen may readily be made by a handy man. A washable crawling rug will be useful. A screen with washable curtains, such as is seen in any hospital, should be at hand for the baths, or for drying after bath.

CHAPTER III

DIET AND DIGESTION

THE whole health and much of the happiness of a normally strong child depends on the state of its digestion, and this, again, largely on the character of its diet.

For the first year of life liquid food, *i.e.* milk at first diluted and finally undiluted, is sufficient, and solid food cannot but be injurious. It has been already pointed out, and it cannot be too much emphasized, that no food can suit a baby so well as its mother's milk. The mother who is feeding her child should do all in her power to keep herself in good condition, and so produce a sufficiently good quality of milk to satisfy her infant. She should take regular outdoor exercise and avoid any very acid food at first, or any rich or indigestible articles, as these affect her own state of health and to some extent the composition of the milk. When a mother has not sufficient milk to satisfy the child entirely, she should not immediately wean it, but, while still making every effort to improve the flow of milk and its quality, it will be advisable for her to give one or two bottles a day of artificial food of the quantity and strength prescribed for an artificially fed baby of the same age. In any case many mothers find it necessary to give one bottle a day after the child has reached the sixth month, and it should be put altogether on to artificial food by the end of the ninth month, after which the mother's "nursing" is not

good for either herself or the child. Weaning should be a gradual process, the number of "bottles" given daily being increased at intervals of at least a week. The child is thus more gradually accustomed to the new diet, and the mother's milk gradually decreases with the diminishing demand. Otherwise the breasts may become very swollen and painful for a short time.

For artificially fed babies the best substitute for the mother's milk is cow's milk (see page 11). Barley-water or oatmeal-water may be substituted for water after the first few months. Both are slightly nourishing and have a beneficial effect on the bowels. They are easily prepared from Robinson's Patent Barley or groats. Care should be taken not to make them too thick; a very "flat" dessertspoonful to a large breakfastcupful of water makes the right consistency.

The food should be prepared as soon as possible after the arrival of fresh milk, lest this should become sour or even lose its first freshness. Long before milk is really "sour," it may be in a condition unfit for an infant's food. This deterioration should be prevented by early boiling or sterilising and rapid cooling, as described in Chapter I. Where milk comes in fresh twice a day, only the bottles which will be required before the next arrival of fresh milk should be prepared. (I have generally boiled three "bottles" at a time.) After sterilisation the milk should be covered to keep out dust and prevent as far as possible any contamination.

Sometimes some form of prepared food is found to agree better with a very young or delicate infant, or may be used temporarily for a healthy infant. When there is difficulty in obtaining a supply of reliable cow's milk, condensed milk (diluted) may be used. When this is given, a new tin should be opened each day. The

dilution of the milk will vary according to the age of the infant from one part milk to sixteen of water to one part milk to eight of water. For babies up to the age of two or three months Allenbury's No. 1 Food (which is a modified milk powder), is the best. From about three months to six or eight months Allenbury's No. 2 Food (which is composed of the No. 1 Food with the addition of a malted meal) or Horlick's Malted Milk (composed of dried milk, malted flour and a small proportion of bicarbonate of soda) should be substituted. Such a food as Mellin's Food (composed of powdered grain completely converted into malt sugar) or Savory and Moore's Food (in which the powdered grain is partially converted into malt sugar) contains no milk, being intended as an addition to cow's milk, and is suitable only for babies above the age of eight or nine months, for whom it is quite a valuable addition to their dietary; but such a food is not only unnecessary but indeed harmful for younger babies. An artificial food should not be used exclusively unless absolutely necessary, as, if continued over a long period, scurvy is almost sure to ensue. Even when given temporarily, it is as well to give the child (not, however, under three months) one or two teaspoonfuls of fruit juice, if it is found able to take it. It must be noted that no food is ever so valuable as cow's milk carefully modified in accordance with the directions already given, and, being fresh, it contains elements which prevent scurvy.

Sometimes a child of eleven months will seem to require something more than its "bottles." In such a case, rather than give solid food, I should recommend my own practice of mixing the yolk of a new-laid egg with one of its bottles daily. When the child is a year old, the midday bottle may be replaced by a light meal,

such as soup made from fresh meat and vegetables, followed by the pulp of a well-baked and sweetened apple. Thus the first step towards putting away the feeding bottle is made. If the child takes well to its new diet, the ten-o'clock bottle at night may be given up. In fact, many people discontinue this at nine months. The child may now be given a breakfast-cupful of thin gruel after its evening bath. This it will take from a spoon. I have found that at fifteen months a baby will drink its milk too from a cup. Children are more or less conservative in this matter, and indeed differ greatly in power of swallowing. Small, very small quantities of thin bread and butter may be given after a "bottle" at this stage, or even a biscuit, which the year-old baby seems to find much pleasure in crunching, but it must not be allowed to cram its mouth, as it will probably "choke" over the unaccustomed fare.

An alternative dinner to soup is a little thin milk pudding and apple, or a lightly boiled egg, though this should not be given if the yolk of an egg is still given in milk. Generally a child will only eat part of an egg until it is about two years old. At first the baby will probably resist the new food—at any rate, the soup—but a few days' perseverance will suffice to overcome its objections, and until the third year, when a little meat or fish can be given, soup really makes the best dinner. The meat from which the soup is made, and also the vegetables, should be fresh and varied. A mixture of shin of beef and knuckle of veal with vegetables makes almost an ideal soup for children. Some bread may be crumbled into the soup plate or a little finely-shred or mashed potato, but care should always be taken not to overload the child's stomach with too

much solid matter. At eighteen months a little vegetable such as the flower of cauliflower may be given or very tender French beans.

When the molar teeth are cut, small quantities of boiled fowl can be given, and soon a little finely-shredded meat from the underdone portion of a hot joint. Up to the age of three years the greatest care should be taken to give the child only the most digestible food, and indeed all through childhood the ideal should be much the same. Much milk should be drunk, but it should not be forced too rigidly on children. If they are allowed a little latitude in the matter, they will generally like it as a drink. I have found that my children of 3 and 4 years of age will still take from a pint to a pint and a half each day. I have always sweetened it and given it tepid as during babyhood.

Porridge *well cooked* is excellent, but that too tends to pall, and it is better to give it only on alternate days when such is the case, or, if there seems to be a genuine dislike for it, it will often prove a good plan to drop it from the menu altogether for a time. Cocoa made with milk is a nourishing drink if it is not found too heavy. Such meats and fish as are most suitable for invalids are also the best for young children. Meat should never be cooked twice, and all forms of meat pies and savoury dishes such as sausages, kidneys, and liver are bad. For breakfast a little fat bacon well cooked makes a change. White fish boiled or stewed in milk is excellent.

Chicken, turkey, pheasant, and partridge are the best fowls, while goose, duck, veal, and pork should be avoided. Well-cooked vegetables are beneficial, but should not be given in too large quantities. Milk puddings are the best, but any simple light pudding may

be given as the child grows older. Sweets are often beneficial when not eaten between meals. Bread should be at least a day old, and "standard" bread is more easily digested than wholemeal, but both are good if found to agree. Jams, honey, syrup and marmalade are all wholesome, as also is stewed fruit and the juice of such fruits as oranges and grapes. Raw and unripe fruits should not be given to children. It is quite common to see children eating raw apples and pears, but these are not good. Still less are dried fruits, such as figs and prunes, though these, especially the latter, are excellent when cooked because of their effect on the bowels.

One of the most common troubles of childhood is constipation, *i.e.* the sluggish action of the bowels. The greatest attention must be paid to the regular and sufficient action of the bowels. For the first few days the action of the bowels of a newly-born infant consists in the expulsion of "meconium," the bile which has been stored up in the intestines before birth. It is of a dark brown colour. Gradually the stools become lighter and a healthy baby for the first few weeks will have at least three or four motions daily, each motion consisting of two or three ounces of deep yellow half-fluid matter. There should be no disagreeable smell, and, if the child is digesting its meals, there will be no curd of milk. Sometimes this is present in the form of white specks. The stools will become greenish if exposed for some time to the air, but should not be so at the time they are passed.

If a child has only one motion a day in the first few weeks, it is suffering from constipation, or even if it has several very scanty or hard motions. In a few weeks the number of motions daily will probably fall

to two, and this may continue as far as the third year, when one motion is the rule. A child in its second year also often has but one motion daily. Constipation may be due in infants to some constitutional weakness of the bowels, which seems to be growing increasingly common. More often it is caused by a deficiency of fat in the food, or even a deficiency in the amount of food itself. A breast-fed baby suffers less often than others from this complaint, but the condition is very common even with these. The mother should in these cases make every effort to regulate her diet in a laxative direction, taking abundance of nourishing food, and especially porridge, fruit, and vegetables.

She should try to ascertain the quality of her milk, if these efforts and increase of outdoor exercise do not suffice to remove the annoyance. It may be well for her to give one bottle a day, a change which is sometimes followed by an immediate effect on the bowels. With older babies a scantiness and hardness of the stools indicates the point when a change may be made in the proportion of milk to water in their diet. It may also be beneficial to increase the amount of cream in the bottle, adding, say, another teaspoonful to each. Mellin's Food, as an addition to the bottle, has an excellent effect on the bowels, and the same purpose is served with the older children by the barley- or oatmeal-water with which their milk is diluted. After the first year, when the food is more varied, less difficulty is experienced in this matter. It is the greatest mistake to treat constipation in either infants or children by repeated dosings with aperients. Every effort should be made to overcome the trouble by regulation of diet, and with older children by insisting on sufficient and regular exercise. It is sometimes found beneficial to

rub the abdomen of a young infant with the flat of the hand smeared with some aromatic oil. The movement should be gentle and the pressure equal, and should be in a circular direction beginning low down on the left side and passing round to the right. This may be done for five minutes when the baby is undressed for its bath.

Opinions seem to differ as to the beneficial effects of injections or enemata. Most doctors prefer a glycerine suppository for young infants, and when the bowel is healthy and merely sluggish it responds readily to this. If an enema is given a teaspoonful of glycerine mixed with a tablespoonful of boiling water will answer well. The glycerine cools the water and brings it to about the right temperature for the injection into the bowel. But great care must be taken that the liquid is only warm. If it is cold or too hot, much harm may be done. The injection should be made with a glass syringe with a vulcanite nozzle, as a glass nozzle might break and injure the bowel.

The administration of a few spoonfuls of tepid drinking water daily to a young baby is often good, or fruit juice or a syrup of sugar and water given after a meal. But all babies do not seem to be able to take these, and it is best to desist if it is found that the child is inclined to vomit as a consequence. Regular "training" is valuable in helping towards the regular action of the bowels. Cases of obstinate or chronic constipation should be treated by a doctor.

As children grow up, their diet approximates more and more to that of the ordinary adult; but poor mothers may comfortably reflect and mothers in better circumstances be warned, that when all is said the best food for children is ever the simplest. Porridge and milk

is always one of the best foods. I find that it is hardly advisable to substitute cream for milk, at any rate not till the children are past their third or fourth year. This is a point that may be recommended to mothers who are anxious to give their children fattening (which they call "nourishing") food.

After constipation I suppose skin troubles loom largest on the horizon of the average mother, and it is very probable that the cause of both is, to a great extent, indigestion.

Few things are more distressing to the young mother than to see her baby disfigured by rashes and "spots," but these are very common in infants, and are, for the most part, connected with difficulties of digestion.

Such rashes and spots do not readily lend themselves to direct treatment. If they should even *threaten* to become serious, a doctor should be consulted, as the child may be developing some form of eczema. (See p. 55.)

Some children tend to have a certain "roughness" on the cheeks in their second or third years. This probably arises from some slight difficulty in digestion. The greatest attention must be paid to diet. The only external treatment advisable is the application of some emollient such as Hazeline Cream before the child goes to bed each night. It is best to leave the face free of even this in the daytime.

CHAPTER IV

CLOTHING AND EXERCISE

A NORMAL mother who sees much of her children will hardly require to be told that children as a rule exercise themselves very thoroughly by instinct. They stretch and strain, lift, carry, push, pull, run, walk, creep, bend in every direction, kick, talk, shout, sing, and scream. If any means of exercising any part of the physique of a child is not covered in this meagre list of a child's daily doings, I feel confident it is included under some omission from the list. It is for this reason that I think physical exercises for ordinary healthy children quite superfluous. My own experience of a system I tried is that the children take up the positions only very approximately, and carry out the exercises even more so. The result is, that exercises planned to develop certain parts of the physique do not affect them except in the remotest manner, and, in a word, the occupations upon which the normal child is so busily engaged throughout the day perform all the required development. The reason of this is very clear. It is almost impossible to make a child up to (and probably some distance beyond) the age of 5, carry out actions that must appear aimless to it with any zest, even if such actions are accurately performed. There can be little if any use in waving arms about limply, and this is all that can be achieved. But in pushing a large toy perambulator with the latest

“Cupid Ascolot,” “Lily Maid,” &c., packed in, a certain force is called forth. There is no need to labour this point. My youngest child, who is but 18 months, has for some months been in the habit of lifting himself until he hangs suspended from one of the brass bars across the nursery window. The operations he goes through are a perfect exercise for most of the muscles of his small body; but how to accomplish the same exercise by artificial exercises I do not know. A good nurse or mother will always be able to encourage children who are inclined to laze by some new game or occupation, and this will be quite sufficient for the first five years of life.

There is, however, one exception to this abdication of systematic exercises to instinct, and that is as regards posture generally. A little girl will often put her head down to run. She should be taught to throw her head back and her chest forward. At times they will sleep with their mouths open, or run, breathing through their mouths. This should be corrected at once, the child being taught to breathe through its nose. When asleep the mouth can be gently closed without waking the child.

Fresh air is most necessary for children, and they should be out nearly all the day when it is fine. If the house has a garden, the children can be turned into it as soon as they are bathed and dressed in the morning. But it will be found necessary to take them out, as they naturally become tired of being in one place too long. A caution may be given here with regard to the amount of exercise children should be allowed to take, though I think a child will almost always say it is tired when it has had sufficient. A child of 3 years or under should never go out any distance unless accompanied

by a perambulator or push-cart in which it can be wheeled when it is tired. As an almost universal rule no child will allow itself to be wheeled if it is able to run or walk comfortably.

Another problem connected with the exercise of a child is the morning or midday sleep. This should be continued rigidly until the child is about 4 years of age. After the morning walk the child should be undressed and put to bed about 11.30. The child can be waked about one o'clock for the midday meal. It is generally better to continue the midday rest a year longer; but a child over 4 years of age very often resists, and if put to bed disturbs the sleep of other children by singing or shouting. When a child reaches this point, it is probably much better to allow it to play quietly in the nursery, looking at books or pictures.

After food and exercise, the greatest factor in a child's health is, I suppose, clothing. This is not a great problem. The vast majority of children are much over-clothed. My own children have always caused comment by the little clothing they wear. The clothing for the first year has been described already (pp. 15-16). After the first year my children have worn in summer woollen combinations, with small knickers (closed by buttons on the waistband) of dark blue linen fastened by buttons on to a slip, and light alpaca frocks, with sandals but no socks. In the hot sun they have worn straw hats. An ordinary mushroom shape affords the best protection. In winter they wear over their combinations woollen jerseys and skirts, the upper of the latter being a mere slip on to which the skirt and knickers (which may be of stockingette, or flannel—though I have never found these necessary) may be fastened. They also wear stockings, coming

well up the leg, and boots. For the very coldest weather they have serge full-length coats ; but they have very rarely worn them except in the cold northern winds. Hats they never have worn in winter. Clothing of this sort is not expensive, and it is certainly healthy. Three layers is the most my children have ever worn except with party frocks (when a light skirt is worn in addition) or in winter when the coat is worn. Light clothing such as this gives the children freedom to develop, and the closed dark knickers have a certain effect on health of mind as well as body where children of opposite sexes play together.

A boy wears over his combinations a linen tunic and linen trousers buttoned on to a slip, with sandals, no socks, and a straw hat for the sun. A serge tunic (or woollen jersey) and trousers, and the addition of stockings and a possible full-length coat make all the necessary change for winter.

In no case should children of either sex wear tight clothing: tight waistbands, &c. My girls have never worn stays of any kind, and will never wear corsets. I have never worn them, and there can be no question that it is healthier to dispense with them altogether.

Children should never be allowed to retain damp clothing. If they are out in the rain, all the clothes that have any trace of dampness should be changed as soon as they reach home. Even if it is not raining but slightly damp under foot the boots or sandals should be taken off—in any case it is a good practice to change boots even when not damp—and put on house shoes. Children should also have bedroom slippers, to be returned there after the morning bath ; night-dresses, preferably made of flannel—viyella I have used ; and dressing-gowns Any mother who has

any experience of sewing can make a dressing-gown out of some fleecy sort of flannel. Dressing-gowns are necessary, because it is almost impossible to keep children out of draughts before and after bath time. Draughts and cold feet are the two great evils against which every mother must be on her guard. Children when interested will stand at an open door through which a gale is blowing in their night-dresses, unless they are carefully watched. No insistence can be too urgent against the evil of chills. A child must never be allowed to loiter about in its night-dress or barefoot.

On the other hand, the window of the nursery both day and night should always be opened fully, unless the door is also kept open (as in the early part of the night) so that any sound may be heard. At night the window opened top and bottom to its fullest extent should most certainly be adhered to as almost a necessity. In the daytime in the coldest weather, perhaps, it may be sufficient to have the window only half-opened at the top.

Children should be taught to sleep from the very first days on a hard mattress, with a very slight pillow if any. My children have never had them. The bed covering should be slight, two warm blankets I have found sufficient even in the coldest weather.

The unfortunate habit of wetting the bed can be checked to some extent, even if not completely, among very young children, by providing that they are not disturbed at all by any noise, until the nurse or mother takes them up before going to bed herself. If they are disturbed before, the evil cannot be prevented, for it generally takes place immediately on waking. Generally the evil vanishes between 2 and 3 years of

age; but the age varies, and may be extended in nervous children. If the child has not been taught to stop the habit by the age of $3\frac{1}{2}$ years, the doctor should be consulted, as it is probably due to some derangement of the nervous system, most often occasioned by difficulty in breathing at night due to adenoids. Punishing a nervous child for a habit over which it has no control will only make it more nervous and do it the greatest harm, while simple treatment by the doctor will relieve the condition.

CHAPTER V

GROWTH AND HEALTH

WITH the exception of the first few days of life, when a child may decrease in weight, it should grow steadily heavier, and the best possible check upon disease is consistent weekly weighing, which should be rigidly adhered to. Normally, a child may be expected to gain $5\frac{1}{2}$ oz. weekly during the first two months, about $4\frac{1}{2}$ during the next two, and about $3\frac{1}{2}$ during the fifth and sixth months. If this actually took place, a child weighing 7 lb. at birth would, at the end of twenty-six weeks, weigh 15 lb. 5 oz., a little more than double its weight at birth. Its progress could then be represented on a chart such as that given here (Fig. 6), and every mother is strongly recommended to keep such a record¹ of her baby's progress during the first six months of life at least. It will be noticed that in this chart each vertical square represents half a pound, and each horizontal square one week.

Above the line of bold black dots which represent the ideal average baby's progress I have marked all the weights I can find preserved of my own last baby.

¹ Weight charts can be bought from Messrs. Hawksley, 357 Oxford Street, London, W., price 3d., but anyone can buy a piece of ordinary squared paper and use it as a weight chart, by marking any selected number of squares for one pound and any number for a week.

A comparison of the course of the ideal average baby with that of a real above-the-average baby is instructive. It will be noticed that the weight of the real baby, $9\frac{1}{2}$ lb. at birth, fell slightly during the

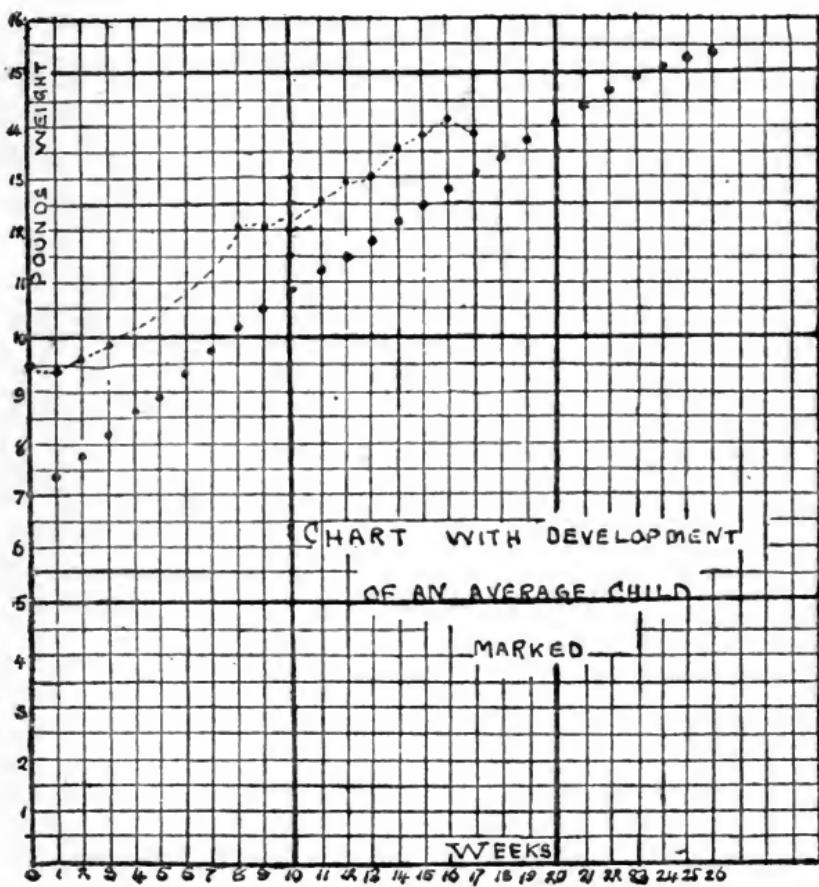


FIG. 6.

first week. As this was quite explicable by, and, indeed, to be expected from, experience, it caused no anxiety. But the strange waviness of the dotted line joining the points marking the weights shows how easily the normal course of a baby's development may be disturbed. This baby has, so far, been quite healthy.

A big child to begin with, he has consistently kept well above the average. There have been no wakeful nights with him. Indeed, my three children have only provided one wakeful night among them.

A small variation from the slightly curved line which should be formed if the dots representing the weekly weights of an ordinary healthy baby are joined, is therefore not very significant, though each time the gain in this case was less than it should have been every possible cause was discussed, and the fact that the next week after a *small* gain showed a *greater* increase, is sufficient proof that the cause had been found. At times it was caused by my eating unsuitable food or overtiring myself in some way, at other times through some carelessness of the nurse, such as standing with the baby in a draught when he was undressed for his bath. The seventeenth week shows a distinct fall in weight, the first since the first week. The two preceding weeks had shown only slight gains, and, after thinking of all the circumstances, it seemed clear that the child was not obtaining sufficient food. One bottle was therefore given him per day after his morning bath. When the gains again commenced to be small, another bottle was substituted for breast-feeding after the evening bath. The child was in this way gradually weaned. At six months he was wholly living on artificial food.

Now, this illustrates the use of the weight chart. A child may look well, especially about the face, which is generally the last feature to show a change, even when he is losing weight or at a standstill. The looks of a child are not very trustworthy; but the scales cannot lie, and if a baby is not steadily gaining by amounts approximating to those given on page 48, there is

something wrong, and the sooner it is seen to the better. If the gain is steady, but not as great as it should be, this again is a matter requiring investigation.

The weight of a child after the first six months does not increase so rapidly, and the decrease in rate continues to the end of the fifth year, as well as far beyond.

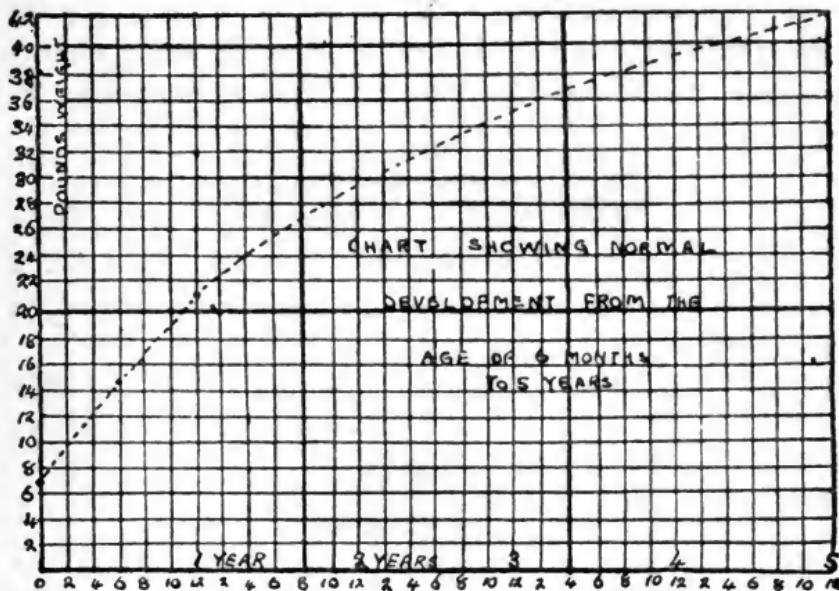


FIG. 7.

Thus, while a normal child will more than double its weight in the first six months, it will only increase to about three times the weight at birth in the first year, and will only double its weight at the end of the first year in the next four years. But the child, if healthy, should always be gaining, and the weight chart should be kept up for the first year.

There are many methods of weighing a child. It can be placed, during the early months of life, in a basket and weighed by a spring balance, the weight of the

basket and clothing being deducted. It is best to weigh the child naked. This may readily be done before the evening bath. The child can then be slipped into a basket, and weighed with the spring balance. Of course there are other and better methods. Several special balances are made for weighing children. Mr. T. Hawksley, of 357 Oxford Street, London, W., is the maker of a convenient model, as shown in Fig. 8. The price with chart is £1, 1s., sixpence extra being charged for packing. Even if a mother does not possess any



FIG. 8.

weighing machine, the local chemist will probably weigh the child for a penny. If the same clothes are always used when being weighed at the chemist's, they can be weighed once, and the weight be deducted from the total for the future. In leaving this point, let me again strongly urge all mothers to weigh their babies weekly for the first year if possible, but if not, or if very inconvenient, at least for the first six months. It is an almost infallible guide to the child's health, and one may be absolutely certain that nothing can be amiss with the child while a keen eye is being kept upon the weight chart.

A normal child doubles its height at birth by about the end of the fourth year, and at the same time its chest should be more than half as broad again. In the first year its height increases by about 50 per cent. Thus, if it is 20 inches at birth, a normal height, it should be 30 at the end of the first year. The chest in the same period should have grown a little under 50 per cent. These figures are, however, not so important as the weight, though it is a wise precaution to keep a record of chest measurement. If the development in the chest seems slighter than it would be, it will be well to teach a child old enough to understand to take ten or twelve long breaths *through its nose* two or three times a day, each long breath to be followed by a long expiration. When the child is thus filling and emptying its lungs as fully as possible, the windows should be wide open and the air quite pure. It is better if they can be taken outside.

The careful watch upon a child which the constant weighing and measuring implies should be thoroughly carried out. It is much more economical even to consider only the labour and anxiety any illness entails ; and if it is true that a machine which has once broken down has never exactly the same efficiency as before, there may be an analogy in the human constitution. Granting, then, that a careful watch is being kept upon the child, I may point out the signs of any disorder or abnormality ; for, just as it takes very little to throw a child out of its normal course, the evil may be as easily checked and controlled if recognised at the very first.

A general warning may be given at the outset. A mother or nurse should never infer that the appearance of grave symptoms betokens the onset of grave disease. A child may have convulsions owing to undigested food,

and there may be vomiting and diarrhoea, with prostration, from biliousness. The rashes characteristic of certain fevers cannot be mistaken; but, apart from these signs, there are few which are not counterfeited in the simplest ailments. A healthy child of six months will cry, and seem to be on the verge of convulsions and collapse, if by any chance its meal is delayed an hour beyond the time. Even a sudden rise of temperature may be caused by mere indigestion. In all cases of such sudden rises, it is well to put the child to bed and watch for other symptoms. *Convulsions* should be treated as described on page 66; *persistent diarrhoea*—i.e. as distinguished from one or two loose motions—as suggested on page 77. Rest and quietness are the best cure for *vomiting*, with additional care as to diet when the child feels inclined for food.

A mother naturally, and a nurse through custom, takes a certain pleasure in observing the lines of a baby's figure. There are few things in the world so attractive as any ordinary baby's figure. It seems superfluous to suggest that the mother should notice if the shoulders and the hips are on a level, and if the line of the spine is vertical. If they are not, a doctor should be consulted at once. Any abnormality in the figure should be pointed out; but it must be remembered that the proportions of a child's figure differ from those of an adult. Thus a baby's head is proportionately large. In fact, it is only about 50 per cent. larger at ten years old than at birth. The abdomen, also, projects more than in adults. But even so there is a symmetry about a normal child's figure that cannot be mistaken.

There may sometimes be found in one or both of the groins of a young baby an oval swelling, which has a

tendency in a boy to descend towards the scrotum ; or, usually in a poorly-developed baby, a swelling may appear at the navel, which is a weak spot in the wall of the abdomen. This condition is a *rupture* or *hernia*, and it is more emphasized on coughing or straining. A doctor must be called at once, and usually he can press the rupture gently back—a procedure which must not, however, be attempted by any mother or nurse, as the consequences of an unskilful attempt may be serious—but probably the child will require to wear a truss.

A swelling on the angle of the jaw near the ear, causing pain when the jaws are opened, is also a sign which should not be neglected, as it is one of the chief symptoms of the very infectious disease *Mumps*. Generally there is a rise in temperature, and in boys the testicles are sometimes swollen and inflamed. There must be a rigid isolation of the child for about a month. The bowels should be kept open, and hot fomentations may be applied to the swelling. Beyond this it is only necessary to keep the child warm and out of draughts—there is no necessity to keep it in bed—and a light nourishing diet (milk and soups, chiefly) should be given.

After the shape, the surface of the body will naturally be examined. Roughness of the skin has already been mentioned, and in this connection one may give a warning about the varieties of *Eczema*. Almost any variety of skin affection is classed as eczema, but there is a vast difference between the roughness of the skin, even when it seems to peel off, and the eczema properly so called in which the red and tender skin is surrounded by tiny vesicles of fluid. When the vesicles burst, scabs and crusts form. At times, and perhaps more commonly, no vesicles form, but the red surface

oozes. Now there can scarcely be a more troublesome ailment, if the eczema gets a firm hold, and it must be left to the care of a doctor. Even doctors sometimes find the disease very difficult to eradicate from the system, and in this case it is worse than useless to tamper with it at home. On the first sign of an oozing inflamed skin, it is far wiser to consult a doctor at once, as the chances of a speedy cure are much better if taken at the beginning. One thing, however, every mother can do—shun the little carelessnesses which give rise to the condition.

A child's skin is extremely tender, and every care must be taken to prevent irritating it. The face and head are the places most commonly attacked by the disease, and the causes of an outbreak in these parts may be either internal or external. Among the latter are east winds, overheating by the fire (some nurses are very ready to sit by the fire with a child sitting in their laps and scorching its face), and parasites. The chief internal cause is indigestion—an unsuitable diet is always a predisposing cause of eczema. The means of avoiding all these causes are sufficiently obvious to need no pointing out. Eczema may also appear in different parts of the body owing to damp napkins being left on the child, or insufficient drying after bathing. Here again the way to avoid the development of the diseased condition by these means is perfectly clear. Wet napkins should never be left on a child, and all the creases should be carefully examined daily to see that no soreness is arising. The child should be carefully dried after each bath, and the creases should be dusted with starch powder. If there is the slightest soreness, a little unscented lanoline or vaseline should be well rubbed into the sore place. Hazeline cream

is another good remedy for soreness. If there are other children in the house every care must be taken to prevent the infection of eczema spreading. The towels, sponges, hair brushes, and combs of other children must be kept strictly apart from those of the child which is suffering from eczema. Further than this it is wiser to say nothing. What will cure the condition in one child will only aggravate it in another, and it is much wiser and safer, as well as more economical in the end, to consult a doctor at once.

If a round red spot appears on the scalp or on the body, it should be carefully watched. It is *Ringworm* if the centre fades away, leaving a well-defined ring. As it is very infectious, all towels, sponges, &c., used by the child must be scrupulously kept apart. It is readily cured when on the body, but often difficult to cure when on the scalp. One painting with a solution of formalin is generally all that is necessary in the former case, but if it has not disappeared in two or three days it may be painted again. The solution of formalin may be obtained from any chemist. In ringworm of the scalp, the hair must be cut short in the affected region, and the formalin solution painted well in every two or three days. Another successful method is to paint the patch with croton oil, the affected hairs then falling out and cure resulting.

Rashes.—After eczema there are other conditions of the skin which are even more important to recognise. There are a number of rashes which may be very simple or may be symptoms of the onset of grave disease. A nurse or mother should be able to tell whether the rash is of the one variety or of the other. The commonest rash found in infants consists of small red points, which turn into tiny vesicles of transparent

liquid, dry up, and form scabs. A variant of this rash is a crop of tiny red pimples, which cause much irritation. This latter is the so-called "red gum," which is popularly but erroneously supposed to have some subtle connection with teething. Both are known to doctors as *Sudamina*, a word which describes their cause, for they are sweat rashes. The treatment is to allay the irritation by the use of a little carbolic ointment, and remove the cause by seeing that the clothing both at night as well as day is not such as to cause perspiration.

Another variety of rash that is very common, especially in summer, and which is also of very little significance, consists of tiny raised lumps a little resembling what are commonly known as heat lumps, in the midst of an inflamed area. At times tiny vesicles come on later. This is *Nettle Rash*, and the great trouble is that children are prone to attempt to relieve themselves from the irritation by scratching. This rash may be caused by indigestion or by the bites of insects. A little soothing ointment may be applied as in the sweat rash. When the condition cannot be traced to the bites of insects, unsuitable food such as shell-fish, seed fruit, or tinned food may be suspected. These are, however, trivial complaints; but perhaps the reader may be reminded again that a practical experience of three children shows that the graver diseases can be kept off altogether by ordinary care. Many people seem to realise that a sewing machine or motor car cannot be expected to work well and have a long life if it is not used carefully, but do not grasp the fact that the human organism is a much more complicated machine, and demands at least an equal amount of care to yield the best results. There are several

diseases which are distinguished by a characteristic rash.¹ Seven of these may be noted here, though it must be remembered that typhoid, typhus, and smallpox are now extremely rare as children's diseases :

1. Small reddish pimples, which rapidly develop into vesicles containing yellowish fluid, and in four or five days dry up into little brown scabs on the body—sometimes only a few, and sometimes hundreds, coming out in crops for a day or two—**Chicken-pox**.

2. Dark-crimson spots, slightly raised, often grouped in the form of irregular crescents, appearing first on the forehead, cheeks, neck, and arms, next spreading to the body and limbs. White spots are often found inside the mouth. For four or five days before the rash appears the child appears to have a bad cold, with a cough, the face swollen and puffy, the nose running, the eyes red and watery—**Measles**.

3. A rash similar to that of measles, but with the spots of smaller size, of a paler red, and less grouped, but starting in the same way on the face and then spreading to the body, while the other symptoms are slight or absent—**German Measles**.

4. Small bright-red dots closely set together, eventually causing a diffuse redness of the skin, generally noticed first on the neck, back, or chest (to which it is at times confined), never markedly on the face, with a peeling of pieces of skin when the rash fades—**Scarlet Fever or Scarlatina**.

5. Small oval, or round pale-pink, or rose-coloured spots, sometimes only a few, on the abdomen, chest, and back, coming out in crops day by day for four or five days—**Typhoid Fever**. (Enteric is the more usual name nowadays.)

¹ This section of the book has been carefully revised by a doctor.

6. Mulberry-coloured spots or blotches on the abdomen, chest, sides, back, and limbs, and, rarely, on the face and neck. The dark-red spots are slightly raised, and tend to become darker, while there is a fainter mottling of the skin around—**Typhus**.

7. A diffuse redness, in which numerous raised points appear, almost always appearing first on the face and especially on the forehead, spreading later to the trunk and limbs, accompanied by itching. The raised points become vesicles containing a clear fluid, changing to pustules with yellow matter, which increase in size, causing an unsightly appearance—**Smallpox**.

It must be clearly understood that, with the exception, perhaps, of chicken-pox, these rashes are preceded and accompanied by other and more conspicuous symptoms. I have known of a case of chicken-pox in a doctor's family which was only noticed by accident. The rash is not very prominent, the temperature¹

¹ As the temperature is of great importance as a symptom of disease, it may be well to describe briefly how to take a temperature. It is a thing every mother and attendant on children should know. The thermometers used for this purpose are called clinical, and are made with a long bulb; as a rule they do not register beyond 110 degrees Fahrenheit, and are not marked beyond three or four degrees below the normal heat, 98.4 degrees Fahrenheit. The thermometer should be kept perfectly clean, and never put away without being first carefully washed; if there is any suspicion of infectious disease, it should be washed in a little disinfectant. Before taking a temperature the thermometer should be shaken to send the mercury back into the bulb, as these thermometers are so made that the mercury does not otherwise fall back into the bulb. If a quick reading is required the best place to take the temperature from, is the mouth. Place the bulb of the thermometer carefully under the tongue for a few minutes, instructing the child to keep its mouth closed and to breathe through its nose. A better place, if the child can be expected to remain quiet for ten minutes or more, is the armpit. The thermometer should be placed

seldom high, and the child does not complain of being ill, and plays about as usual. In the case of which I have spoken, no special treatment was given, except a little extra care about draughts and attention to diet, and the child was kept within doors. In general the vesicles continue to come out for several days, last a day or two, then form scabs, and drop off.

While there is any raised temperature it is safer to keep the child in bed, and this also applies to the period during which the eruption is noticed. Apart from this, and a little extra care to keep the diet light, there is nothing that need be done. But the child should be isolated for from three to four weeks—*i.e.* until the skin has resumed its healthy condition again, and even this does not cut off all risk of infection. A nurse or any one attendant on the child can carry the infection by her clothes, and it may also be spread by toys and books. It is best, therefore, to burn the toys and books that have come in contact with the child, unless they can be (and are sufficiently valuable to be) thoroughly disinfected by being left in an atmosphere which is impregnated with formalin.¹ An overall worn under the arm, and the arm should be drawn down to keep air away from it. The external opening of the bowel is another place where the temperature may be taken, and perhaps this is the best place where there is a touch of delirium. The thermometer should be placed well inside, and the reading be taken in a few minutes.

¹ Formalin is so good a disinfectant and the method of using it so easy that a little explanation may be made. When it is required to disinfect anything—clothes, toys, a cot, or perambulator—a room should be selected which can be made fairly air-tight. The window should be treated by putting cottonwool between the sashes, the spaces round the corner of the window should be similarly treated, and sufficient packing should be kept for the door. Some tabloids of formalin—three or four will do—should then be placed in any receptacle over a lighted spirit lamp. Place

while with the child, and left off before visiting other children, will prevent the carrying of infection by clothes. A solution of formalin can also be obtained and sprayed about a room.

The fact that this is an infectious disease suggests that a little care as to the children with whom one's own children are allowed to mix may prevent a mother having any practical experience of this and the other infectious diseases. This is my own experience, and it is corroborated by the fact that the onset of infectious diseases is generally coincident with the time at which a child first goes to school.

One other of these rash diseases is of so slight a character that one may have it and hardly be aware of the fact. Very generally the rash is the first symptom, and there is usually some slight tenderness in the glands of the neck. There is little if any rise in the temperature, and the child is not apparently ill. If this describes any given case—and it is the average case of **German Measles**—the treatment is simple. The child should be isolated, and kept in bed on a liquid diet. Care must be taken about the child going out, to provide against chills, when the disease has spent itself, and the child is normal again. The isolation should be kept up for about a week or ten days after the disappearance of the rash, when the child will probably be well. Unlike measles, there is no bad subse-
this well in the room near the articles which it is required to disinfect, and then close the door, block up all the spaces round it, and leave the room locked for six or seven hours. Then the room may be opened, and with a wet cloth round the mouth and nose, the nurse should step quickly to the window, throw it wide open and then leave the room for an hour or so, when the fumes will be sufficiently diffused to make it possible to enter the room without discomfort.

quent history to record of German measles. The attack is very slight, and the after-effects are practically negligible.

In each of the other rash diseases there are symptoms which appear before the appearance of the rash, and there are graver symptoms that accompany it. Measles not uncommonly starts as what seems to be a rather heavy cold. The temperature rises, the eyes and nose run, and there is often a hoarse cough. The "cold" occurs about ten days or a fortnight after exposure to infection, and on the fourth or fifth day after the appearance of the "cold" symptoms the rash appears. As the period when infection may be taken from the child commences with the appearance of the cold, it is well to isolate any child who seems to have a heavy cold and is suspected of having been exposed to infection from another child, for four or five days. In known cases of measles, isolation should be maintained for about three weeks from the onset of the disease.

The time, perhaps, has now passed when it used to be thought that measles was a negligible complaint, but it is necessary to insist that it not only is not negligible, but is one of the gravest diseases from which a child can suffer. No attack is really to be considered mild or slight. In a "mild" case the rise in temperature is small, the rash is slightly marked, and the child really seems to have simply a very heavy cold, unless the rash is noticed. If it is not, the case may pass unrecognised as measles, while it is always a source of infection, and is liable to the dangerous complications which are so marked a feature of measles. The danger that this may occur is sufficiently grave to suggest to every mother the advisability of carefully examining any child with symptoms of a heavy cold for a rash.

The best advice to anyone who finds that her child has measles is to put it to bed at once in a warmed room. A large sheet moistened with a weak carbolic acid solution should be hung over the door, and a mother who has to attend other children should cover all her clothes (which should not sweep the floor) with an overall also impregnated with carbolic acid solution, and this should be rigorously worn when attending on the infected child. The room should be well aired, a little darkened ; the diet should consist of milk, soups, &c., water should be given freely, and the bowels kept open. Dinneford's magnesia is a very good preparation, though there is a tendency in measles to diarrhœa. If there are marked chest symptoms, if the cough is troublesome and the breathing bad, the air of the room is better kept moist by the use of a bronchitis kettle. If the course of the disease is normal—*i.e.* no complications such as affections of the chest occur—it may be possible to do without a doctor, but it is always better where possible to have a doctor as soon as the disease is recognised. The time when the greatest care is needed is during convalescence and after recovery. Every care should be taken that the child may not catch cold, as measles often leaves a weakness of the constitution behind, and the first few months after recovery the health should be very carefully watched.

In cases of *Scarlet Fever*, *Typhoid*, *Typhus*, and *Smallpox* a doctor should be sent for at once, as soon as the disease is recognised. The ordinary precautions against infection should be carried out as described above. It will naturally be remembered that nothing which has been used by or been near an infected person should be used without thorough disinfection. Further than this nothing will be said of the treatment

of these diseases, as it is infinitely better to leave them in the hands of the doctor, and because the diseases are not peculiar to young children. One or two remarks may, however, be made with regard to the symptoms which precede the appearance of the rash.

The first symptom of **Scarlet Fever** or **Scarlatina** in young children, is usually headache and vomiting ; this is very commonly *accompanied by sore throat, diarrhoea, and a high temperature*. Vomiting and diarrhoea may occur independently, but if there is sore throat with them, and feverishness, there is probably scarlet fever. A rash somewhat resembling that of scarlet fever is sometimes noticed about the second day after the first symptoms of smallpox. It occurs as a red inflamed appearance with slight spots, generally on the lower part of the abdomen and on the thighs. Scarlet fever and smallpox may therefore be confused through the resemblance of their early symptoms ; and the diagnosis is not certain till a little later.

Smallpox usually begins with a fit of shivering, fever, intense headache, vomiting, and constipation ; occasionally the attack commences with convulsions. If convulsions occur, that symptom must be treated at once, and it is therefore necessary to state clearly what a convulsion is, and how it is to be treated. In a typical convulsion the face is pale, there are slight twitchings of the muscles of the face, eyes, and fingers ; there is a catch in the breath, the eyeballs may turn up, and there may be a grinding of the teeth. The body becomes rigid, the limbs stiffen, the breath is held, the pulse is feeble, and unconsciousness comes on. After a short time the breathing is resumed, perspiration breaks out, and the child may fall asleep or may be drowsy for a period, after which it seems to be

normal again. The treatment of convulsions, whatever the cause, is the same. The child should be undressed at once, and plunged into a hot (but not boiling hot) bath, which has a most soothing effect. Convulsions are not in themselves dangerous, and by attention to their cause the effects soon pass away. In almost every case it is wise to secure a full clearance of the bowels, by a dose of castor-oil, after which the child may be put to bed. If the convulsions succeed one another rapidly, the doctor should be sent for, as the condition is then very serious.

Typhoid Fever, when it occurs among children, is seldom very violent and rarely proves fatal; but it is liable to so many complications, and the disease is spread so readily, that it is very important to be able to recognise it at the earliest possible moment. The first symptoms are not as a rule sufficiently characteristic to enable the inexperienced to recognise the onset of the fever. There is headache, a flushed face, a feeling of tiredness, discomfort, and feverishness. It is this last point which must be specially noted. The temperature rises at night, and falls again towards morning. But each succeeding night the temperature is higher until about the eighth, when it generally reaches a maximum at 104° or 105° . During the second and third weeks the range of temperature daily is smaller. At the end of the first week the appearance of the rash on the abdomen will put an end to all suspense, and it is best to call in a doctor then, if he has not been called in before.

Typhoid fever needs unrelaxed care, for it often seems to have vanished, there is a period without any fever, when there is a sudden and dangerous relapse. The causes which may be responsible for a relapse

are indiscretion with regard to diet or to the amount of exertion a convalescent can undergo without danger. The advice of the doctor with regard to the amount and quality of food which may be given and the amount of exercise that can be taken should be rigidly adhered to. Generally it may be said that the fever must have subsided for a number of consecutive days—i.e. the temperature must have been normal—before any solid food is given. Before that milk or beef-tea must be the staple food, and when the temperature has been normal for a week or so, the diet must be very carefully regulated, a very little thin bread and butter being given at first, and a few days later a little meat shredded as finely as possible may be given in the beef-tea. During the illness care should be taken to keep the body clean by sponging with water which is barely warm; especially does this apply to the exit of the bowel, for the cleansing of which a special sponge should be kept and the water used be impregnated with a few drops of lysol.

Care must also be taken to avoid *Bedsores*. Any part of the body on which the weight of the body rests, such as the lower bony part of the back, the hips, and heels, should be rubbed daily with brandy or methylated spirits, and then powdered with zinc oxide, starch powder, or boracic powder. This is, of course, a preventive measure. There are others of a simpler nature which do not, however, do away with the necessity of the above treatment. The parts mentioned should be scrupulously cleansed daily and dried with a soft towel, after which the treatment should then take place. Every effort should be made by the nurse to give the child a number of changes of position, so that no part is used so much as to produce tiredness or

aching ; the under-sheet should be carefully kept without creases.

These precautions should always be taken when a child is in bed for any length of time. Three or four days is the maximum before commencing the treatment for the prevention of bedsores, and with children who have little flesh on their bones the time may advisably be even less. If the bedsores do actually form, the care of them had better be entrusted to the doctor, for they are very hard to cure. Where it is possible, it is of course better to put the child on a water-bed.

Typhoid fever is more than usually troublesome owing to the strange ways in which infection may be spread. The stools and urine may carry the infection, and consequently precautions must be taken against this. Fortunately it is not very difficult to prevent infection from this source. The excreta should be mixed at once with about the same amount of strong disinfectant—a solution of carbolic acid, one part to five of water, or a lysol solution, one part to twenty of water. The latter is probably more convenient for most purposes, as it is readily obtained at a standard strength. No stools should be thrown into the drains until this preliminary treatment has been carried out. All washable clothing should be steeped in a one-in-twenty carbolic acid solution, or water with a few drops of lysol, for some time before being removed from the sick-room, and then boiled before being sent to the laundry. The nurse should also wash her hands in warm water with soap, and then steep them for a few minutes in water to which a little lysol has been added, before touching any article of food.

When the fever has completely subsided, and the child is again eating a normal diet—i.e. when all danger

seems to have vanished—it is well to be very careful about the child's health. For several months after an attack of typhoid fever there is danger of attacks of other diseases, as the fever has the effect of weakening the power of resistance. The child's health must therefore be carefully built up by wholesome food, plenty of fresh air, and great care as to exposure to chills. It is thus when the fever has gone that the mother's anxiety begins, for the doctor will attend to it while it is in progress.

One final word may be said with regard to typhoid fever. It is generally caused by a polluted water supply, and if the infection is not derived from water it is probably from milk. This fact suggests a valuable preventive measure. If all the drinking water of the house and the milk are boiled, there is not very much danger of infection from this disease, as the boiling kills the germs. This is a precaution which should obtain in every household. The water should always be boiled, and the milk which is used for the children should be boiled as long as it is drunk in any quantity, and this for a great many years of life.

Typhus Fever has several marked differences from typhoid fever. It is generally associated with over-crowding and insanitary conditions, and is therefore most common among the poorer classes of the community, while typhoid may attack people of any station of life when the water supply has become contaminated through any means.

Typhus may be carried from person to person by clothing, but not, so far as is known, by drink or food, whereas the opposite is the case with typhoid. A recent theory suggests that the infection is carried by fleas. The beginnings of typhus are not very distinc-

tive. A child may at first merely complain of feeling tired and languid. This may pass unnoticed, but the second stage is more marked. The child feels very ill, weak, and there is a sensation of chilliness, and the child may be taken with shivering. At this point bad headaches are experienced, and there is loss of sleep. Fever is soon noticed, and the temperature almost at once reaches a high level, and maintains it for some days. There is a maximum about the seventh day, but the temperature does not fall much beyond a degree until about the fourteenth day, when it very rapidly subsides, sinking to the normal in two or three days. Associated with the headache and other preliminary symptoms there is a white fur on the tongue, which later becomes brown and dry. Although the mortality from typhus fever is small among young children, great care is necessary. The child should, as in all fevers, be isolated immediately there is any suspicion of infection. The precautions about disinfection of clothing and utensils should be carefully carried out, and for the rest attention must be paid to keeping up the child's strength by the administration of milk and soups. Care must be taken in the stage of convalescence.

The first symptoms of **Smallpox** are characteristic. About a fortnight after exposure to infection fever manifests itself, which rises to 104° or 105° almost at once. Headache, thirst, constipation, pain in the lower part of the back, and vomiting are also present. Sometimes there are convulsions. The tongue is furred, and there is a complete distaste for food. On the third day from the outbreak of these symptoms the rash peculiar to smallpox may be noticed, almost always first on the face.

At the same time the fever generally falls consider-

ably. Two or three days after the appearance of the rash the hard little lumps are seen to contain a clear fluid. This disease is almost always best treated in hospital, since it requires trained nursing and numerous precautions which cannot be obtained elsewhere. Among poorer families it is imperative to have the child removed to a smallpox hospital, and among the better classes it is advisable, for the sake of the possible disfigurement which the child may undergo in any but the most skilful hands. A word may, however, be said about precautionary measures. The necessity for having every child vaccinated according to the prescriptions of the English law cannot be over-emphasized. Since the introduction of the vaccination of infants, the disease, which was formerly peculiar to infants, has become an adult disease, and the cases of infants who have been efficiently vaccinated becoming infected are very rare indeed. And even where young children have caught the infection the cases have been very slight. The efficiency of the vaccination can safely be left to the officer whose business it is to perform the vaccination in the district. Every mother is at liberty to have her child vaccinated by her own doctor. An ordinary healthy child suffers very little indeed from vaccination. In fact, although the limb may be a distressing sight for the nurse or mother, it seems to cause hardly the slightest trouble to the child. It is not necessary to have children vaccinated on the arm, and this is a point that a mother of girl babies may bear in mind in view of her child being disfigured for the wearing of evening frocks.

All who have been near a child suffering from smallpox should be vaccinated at once. It is by repeated vaccination that doctors and nurses in contact with

smallpox patients protect themselves from contracting the infection. Smallpox (and vaccination may be included in it) generally confers immunity from the disease; but the immunity conferred by vaccination is somewhat similar to that given by an attack of influenza in passing away after some time. All clothing which has been in the room of a child suffering from smallpox, and all furniture, should be disinfected. If the room can be closed up and efficiently fumigated by formalin, as described on pp. 61-2, this is the most convenient method.

After rashes which are conspicuous and mark a good part of the body there are subtler signs, indicative of ill-health and disease. The face is a book which the mother should learn to read. When it is flushed for any little time—it is well to make sure that it has not been scorched by the nursery fire—it indicates fever. The thermometer will confirm this and give the degree of fever, and by its varying readings suggest the identity of the fever. A really ill and haggard look is worth many apparently graver signs as an indication of sickness, as these signs may be produced by quite trivial ailments. A constantly open mouth, with a somewhat stupid look, is a sign of the probable presence of **Adenoids**. In this case the nose may look a little pinched, the face may be pale, and there may be a difficulty in breathing and in speaking. As adenoids have a very bad influence on the general health, if the above symptoms are present it will be well to see a doctor, for the condition may be removed very quickly and with little trouble.

The *mouth* of a child from its earliest days must be carefully watched. At the time of teething, the gums are often inflamed and tender, and whitish or greyish

little patches may appear on the membranes of the mouth. At times there are even small ulcers. The soreness may be soothed by applying honey and borax, which any chemist will make up. A graver condition is the growth of small raised white patches on the membranes of the mouth. This is called *Thrush*, and its appearance may be taken as an indication of feeble general health. Thrush may be removed by applying borax and honey, but the condition requires general attention to the health of the child, a sufficiency of digestible food, and plenty of fresh air. If the child is still at the breasts special care must be taken to cleanse both the nipple and mouth before and after a meal.

The *tongue* is a good indicator of health or disease. A furred tongue is a characteristic of several fevers, as has been pointed out already. Affections of the tonsils are sometimes associated with a slight fur on the tongue, and a discoloured tongue is often an indication of indigestion or constipation.

The *tonsils*, the two oval-shaped glands which form the side boundaries to the opening of the mouth into the throat, can be readily and should be frequently examined. A swollen and red condition may indicate a cold, or scarlatina. If the tonsils are chronically enlarged, a doctor should be seen and they should be removed. If the tonsils are red, swollen, and covered with spots of a yellow secretion, this is a symptom of scarlatina. If the tonsils and uvula are dark red, and swollen, and the child complains of headache and sore throat, and the glands under the jaw are swollen, these may be taken as the early symptoms of *Diphtheria*. If white patches of membrane appear on the tonsils and spread to the uvula and soft palate, the diagnosis is fairly certain, and

the doctor must be sent for at once. It is a wise precaution to isolate the child immediately the tonsils and uvula show the dark red and swollen appearance, as diphtheria is a very infectious disease. It is also necessary to send for the doctor as soon as there is any suspicion of diphtheria, as it can be readily cured if taken early, but otherwise its course is apt to be short and fatal.

Colds may next be considered. It has already been pointed out that what looks like a cold may often be the beginning of measles, and hence colds among young children cannot be treated in the offhand manner which adults often adopt. The measles "cold" has already been described, and it may generally be said that where there is a heavy cold, with a raised temperature, and a hoarse cough, it is better to isolate the child at once. The treatment of a cold and of the early stages of measles is much the same. The child should be kept in bed in a warm temperature, and the diet should be light and nourishing. Milk, bread and butter, and milk puddings may be given, and the bowels should be regulated by the use of some simple aperient such as Dinneford's magnesia. If the "cold" should turn out to be measles, the rash will be noticed about the fourth day. Otherwise, if there are no further developments the child should not be kept in bed; but precautions should be taken against fresh chills.

One very common development of a cold is Bronchitis. In a typical case there is a raised temperature, three or four degrees above the normal, breathing is hurried and forced, and there is pain behind the chest-bone. The treatment of bronchitis consists in keeping the patient in bed in a room the temperature of which is from 65° to 70° both night

and day. The cough and breathing may be relieved by allowing a kettle with a long spout to boil away in the room. A little tincture of benzoin may be added to the water. There should be plenty of air in the room, but the bed must be kept out of the draught. The food should be light and nourishing, milk and soups for children who are not at the breast. The bowels should be kept open. If the cough and breathing do not improve, and the fever subside in a few days, or if the child should be weakly, a doctor should be called.

A disease which at times supervenes on an attack of bronchitis is Whooping-cough. This is an extremely infectious disease, and may be conveyed from one child to another, and even by clothing, if this has been touched by the vomit. The disease commences like a cold on the chest or a mild attack of bronchitis; but instead of the cough subsiding it increases and tends to come in paroxysms, and at length the paroxysms become frequent and the cough ends with the familiar whoop. At this stage vomiting follows the paroxysms, and while the cough is on there are symptoms of suffocation. The air is violently driven out of the lungs, and the failure to get sufficient in causes the child to grow livid in the face, and the eyes seem to be on the point of bursting from their sockets until the whooping inspiration comes. The disease cannot be neglected, and the high mortality in the past is due to the sort of familiar contempt in which it has been customary to hold the disease.

The complications to which whooping-cough is liable prove that it is not a disease which can safely be treated without the help of a doctor. If the whoops are not very frequent there is little danger, but where

they are frequent, and where the child is weakly, every care must be taken. If the weather is mild, the child need not even be kept indoors, but it must be warmly clad, and there must be no risk of infecting other children. If the weather is not fine, or there are troublesome east winds, the child should be kept indoors, but there is no need to keep it in bed unless there is fever. The health generally must be seen to : light wholesome food should be given, and the bowels should be attended to. This is all that is required in a mild case, although the tendency to whoop may remain for a long time after the disease seems to have disappeared. In these cases a change of air, a short visit to the seaside, will finally put the disease to flight. In severe cases drugs may have to be administered, but these must be left to the doctor.

A condition which is associated with children above two years old is **Croup**. The child goes to bed apparently well, and in the middle of the night is waked by great difficulty in drawing in its breath, and there is a metallic cough, the air being drawn in with a loud noise. The child later becomes livid, and has to struggle for its breath. At times the attack is accompanied by convulsions. The seizure does not last long, but it may come on the next night. The treatment is to put the child at once into a bath of hot water, and when it is taken out a kettle may well be allowed to steam the room, a little tincture of benzoin being added to the water. If the treatment is carried out promptly there is no cause for alarm.

When a nervous child has been crying or is excited, there is sometimes a peculiar crowing sound heard as it draws in its breath. The child holds its breath until it is blue in the face. When the spasm is over,

the inspiration is of the peculiar crowing nature. The treatment is to slap the child on the back, shake it, or throw cold water into its face.

The greatest trouble of a child's digestive system, Constipation, has already been mentioned. There are one or two others which should be noted. After unsuitable food (in breast-fed infants this may be on the mother's part) a child sometimes screams with pain, kicks his legs about, and gives every indication of suffering from great pain. Massage of the abdomen with the warm hand or hot flannels will generally give relief. If the child is suffering from constipation, an enema may be given (or in older children a dose of castor-oil).

Diarrhœa may be of a simple type, in which merely the number of motions each day is increased, and due to weaning, to the baby's diet not being quite suitable for it, or to teething. The addition of lime-water to the milk, or the substitution of diluted condensed milk or one of the artificial foods (according to the age of the child, as noted before) for the modified cow's milk, may be enough to stop the diarrhœa. Beef-tea and broth which have been given rather too strong may often be the cause, and should then be given weaker and in smaller quantity, or stopped for a time.

Catarrhal diarrhœa, in which the stools are slimy and mixed with mucus, is often due to the irritation of teething, or to indigestible food, or a chill. The cause should be treated, and a small dose of castor-oil given to clear away any cause of irritation.

Summer diarrhœa, or epidemic enteritis, which occurs chiefly in June and July, is a serious condition which causes a very great number of deaths among children, and is due to certain micro-organisms. To

prevent it the milk must be sterilised, as already directed, and prevented from being contaminated from any source. A doctor must be called in at once to treat the condition.

Diarrhoea is a symptom of many of the fevers which have been described above, and of other serious conditions, and if the condition does not yield to the simple treatments which have been given, it is foolish to put off calling in a doctor.

Children who are carefully fed in ordinary well-regulated households do not generally suffer from **Worms**. These are hatched in the bowels from eggs which have been conveyed by drinking-water or by imperfectly cleaned vegetables, and are of two kinds, thread-worms and round-worms. Thread-worms are white and thread-like, the largest less than half an inch long, and their presence is shown by the child's restlessness, wasting, irritation at the nose, and itching at the exit of the bowel, while in females the worms may cause much discomfort if they reach the vagina. Sometimes the worm can be seen in the stools. The treatment is to give an enema of strong salt and water every second night for a week, and, if there is no improvement, one or two teaspoonfuls of castor-oil should be given by the mouth, or a doctor may give other drugs to kill the worms. The exit of the bowel, and also, in a female, the region of the genital organs, should have a mercurial ointment applied to soothe the irritation. Round-worms are like the common earth-worms, and may be about 10 inches long ; they exist in the upper part of the bowels, and the symptoms denoting their presence are very vague. If the child has digestive derangements, irritation of the nose or external opening of the bowel, and general wasting, round-worms may be

suspected, and a doctor should be consulted, who will treat the child with drugs to kill the worms.

Poisons.—If a child has swallowed any poison : (1) Send at once for the doctor, (2) preserve any poison bottle, medicine, food, or vomit just as it is till the doctor arrives, otherwise the most essential evidence will be destroyed. Look quickly for a label on any poison bottle found, and note the odour of the contents. Prussic acid, carbolic, a fuming mineral acid, ammonia, &c., may often be thus recognised. (3) If the nature of the poison is known, it is possible to apply treatment specially adapted to it, as shown in the table below. (4) If the name of the poison is not known, follow these directions :—

(a) Note if the lips or clothing are burnt. If they are, the poison is a corrosive one, and *an emetic must not be given*.

(b) *If the child is unconscious, an emetic must not be given.* The child should be aroused either by speaking to him, shaking him, or flicking him with a wet towel, but not by holding smelling-salts to his nose, as these may do harm to the air-passages before the child is aroused by them.

(c) Unless a corrosive poison has been taken, or the child is unconscious, *an emetic should be administered promptly*, even though the exact nature of the poison is unknown. The best emetic is a tablespoonful of mustard in a tumbler of tepid water, though copious draughts of tepid water or salt and water may be used if necessary. The action of the emetic should be aided by the introduction of the fingers or a feather well down into the throat.

(d) In all cases of poisoning, if the child can

swallow, it is good treatment to give milk, or beaten-up eggs, or strong tea, or coffee, or salad oil. This may be done both before and after an emetic has acted. These remedies act as antidotes to many common poisons, and some of them also salve the irritated lining of the stomach.

(e) Lastly, treat the shock poisoning causes with warmth and stimulants, and do not let the child go to sleep until the doctor has arrived.

CHAPTER VI

MENTAL DEVELOPMENT

IF the bodily health of a child is a simple matter when due care is paid to certain rules which are almost too obvious for it to be necessary to lay them down, the same cannot be said of its mental health and growth. Hardly anything can be worse than a habit of "tinkering" at a child's mind. A child certainly starts its course without preconceived notions of the world into which it is born, but it is just as certainly endowed with certain powers and aptitudes which express themselves and develop with physical growth. Very early in life a child begins to use its mind ; and while it is very important not to stimulate it too much, it is equally important to know what are signs of arrested development.

The normal stages in a baby's development have already been described, and it has been suggested how far such developments may be delayed without causing anxiety. There is a great deal of elasticity about the periods when children walk and talk, but abnormal delays in these natural evidences of growth must be taken as symptoms of something wrong. With an overwhelming majority of children no such trouble will occur, and the problem is how far conscious and deliberate efforts should be made to educate a child in the first years of life.

The word *education* admirably expresses the character

of mental development, for it means a leading out and not a putting in of ideas ; and when this is grasped it becomes perfectly clear that the surroundings of a child are probably just as efficient educators as the best instructors. A child learns its first notions of the universe from its play and its toys, though as it grows older it will demand answers to a host of questions which these and the ordinary things in a house or nursery suggest. The mother's responsibility, which commenced with the direction of the child's environment, in the arrangement of the nursery and clothes, &c., begins here with a force of quite a different character. Makeshift, contemptuous, humorous, or cynical answers should never be given to a child, however young. A parent should do his or her level best to give a simple and satisfactory answer to the child's questions. This is at times extremely difficult. Indeed, one answer may suggest a dozen other insistent "whys." Yet a parent should realise that it is a crime to tell an untruth to a child, through, for instance, some mistaken notion of prudery, and that however great the effort to give a fair and simple answer to a question, it is well worth the trouble to set a child on its course without furnishing it with a mass of mental furniture of which it must unburden itself sooner or later.

A child's moral future is sown in the same early days as its intellectual future, but the troubles and difficulties of training a child's mind are both multiplied and simplified here. Example is the best teacher, and a mother need say very little in the way of moral correction if her own behaviour is uniformly good. But for this who is sufficient ? Prohibitions from petulance or pique should be shunned as a pestilence. A child should always be given what it wants if it can

be readily obtained and is good for it. If the fulfilment of its desires would be hurtful—for instance, the staying up late at night—the child must be told simply the reason, and after that it must be trained in habits of simple obedience.

There is no justification for controlling a child's tastes. If it wishes to wear crimson satin (and it is procurable), in which it would look hideous or startling, it is very unwise to forbid it. The child should be told that it is an unsuitable dress ; and when this has been enlarged upon, if the child persists, it should be allowed to make itself hideous. It will soon learn if the taste of those about it, and the pictures and decorations of the home, are beyond cavil. I do not think there can be much worse influence on a child's mental and moral development than the conviction that it is hampered by arbitrary commands and prohibitions.

Yet discipline is one of the best things for every child. When a mother has come to any decision (and, as I have pointed out, this should demand at least as much thought and care as in her own affairs), it should be adhered to inexorably, in spite of all an imaginative and subtle child's wiles. Promises and threats (these, of course, must be reduced to a minimum) should be fulfilled in face of all difficulties. A threat which is not meant and a promise unfulfilled are evils which can hardly be equalled in the treatment of a child.

The performance of dangerous actions should not be prohibited or prevented so much as persuaded against. If a child wishes to touch a jug of hot water, for instance, it is better to tell it clearly that it is hot and will hurt him, rather than move the jug away. The mother should be at hand to see that no evil results ; but if the child insists on touching it, he will do so more

tentatively, and will merely experience sufficient sensation of discomfort to show him that obedience would have been better.

The question of punishments is full of pitfalls. A child should never be punished in temper, or punished by its fears. Indeed, fears should be rigidly excluded from its experience. No nurse should be allowed, and no mother should allow herself, ever to suggest "bogies" or "ghosts" or "robbers." A child's imagination at times is difficult to cope with in this respect. My second child, when only 2 years old, insisted that when the nursery door was opened "a draught with a blue face" came in. This arose simply from the fact that she had been told to keep away from the open door because of the draught.

For the rest, a child's mind may be agreeably and sufficiently stimulated by the telling or reading of stories. Probably it is much better to read the stories, as many excellent children's books can be had nowadays which cause a child of 3 or 4 years of age very little difficulty to understand. In the *Told to the Children Series*, published by Messrs. Jack (cloth gilt, 1s. 6d. net ; ornamented boards, 1s. net), there are very few words the meaning of which a child needs to ask. The stories become very real to the children, and I have found, on a wet day when tempers are becoming a little difficult, nothing has such a soothing effect as the reading of one of these books. At times a young child may on another occasion be asked to tell a story—say, the story of the Argonauts. The mother or nurse may be tired, and if she tells the child this and asks her to tell mother a story instead of having one read to her, the child is often eager enough to do so. This is a most excellent exercise for a child's mind. The

mother can suggest where the child has missed an essential point, showing how essential it is, and the mental training is thus interestingly and easily begun.

But apart from this conscious training, the stories unconsciously stimulate a child. One can hear them calling their dolls Theseus, Perdita, Geraint, &c. &c., and then asking them very pertinent questions as to their behaviour. At times the children add variations to these famous stories, which give a new, a bizarre, sometimes perhaps an improved, turn to the tragic fates of their heroes and heroines. "Theseus is now going to—" is the formula; and Theseus finds herself in a new and happier or, perhaps, more topsy-turvy rôle. My own view is that no further education is needed up to 5 years of age than this incidental sort which comes from merely filling dull hours with intelligent recreations, and being honest, fair, and firm in the daily questionings and difficulties of nursery life.

APPENDIX I

CHOICE AND DUTIES OF A NURSE

Wet Nurse.—If a mother is unable to feed her child and can afford a wet nurse, it is much better to procure one than to feed the child artificially. The nurse, however, must possess certain qualifications. Her child must not differ much in age from the child she is going to nurse. She must be strong, healthy (a medical examination is advisable), and equable in temper.

Choice of a Children's Nurse.—Too great care cannot be taken in the choice of a nurse. Hardly any position is so full of trust and responsibility, since the health and character of children in after life will to a large extent be determined by the treatment they receive in the first years of their life.

A good nurse ought to be fond of children, good-tempered, and thoroughly trustworthy. She must be healthy and active, bright and happy-looking, and capable of gentle firmness. It is important also that she speaks well and has no defect or peculiarity of any kind, as children are very quick to imitate both the bad and the good.

Personal cleanliness is another important qualification ; and, as regards dress, this must always be neat and tidy and very simple in style. It is not always advisable to insist on nurses wearing white, since the continual glare of everything white, especially out-of-

doors, is not considered good for a baby's eyes, and the washing is a consideration, as white, if worn at all, must be spotless. A soft grey or navy blue is preferable, or grey might be worn in summer and blue in winter. The morning dress should be of linen or other washing material, and for the afternoon alpaca, beige, or serge would be suitable. An apron should be worn indoors. The out-of-door costume should be quiet and neat. There is no occasion for her to wear the uniform of a hospital nurse. A jacket or coat to match the dress in colour, and a hat or bonnet with a ribbon trimming, are perhaps the most suitable.

A nurse should be a good needlewoman. She may not be called upon to make new garments for the children, but she is generally expected to keep their clothing in order and do little renovations.

A knowledge of laundry work and simple nursery cookery are also useful acquirements ; and if she has experience in treating the simple ailments of children, or knows what to do in a case of emergency, she will be all the more valuable to her employer.

Unfortunately, it is not always easy to find all the above requirements in one woman, and this makes it all the more important that the mother should always take the chief supervision. In fact, it is one of her first duties ; and she ought under all circumstances to reign supreme in her own nursery ; and no matter how clever and experienced the nurse may be, it is never right to give her the full control of the children.

Duties.—As regards the duties of the nurse, there must be a plan and a time-table ; but it is for every mother either to make her own, or to do so in consultation with her nurse, and then to see that it is adhered to. The duties will naturally vary with the size of the

family and the number of servants kept, and the mode of living. Where there are several children and two nurses are kept, the head-nurse will have the entire charge of the infant. She will always be responsible for the care of the other children, but the under-nurse or nursemaid will assist with their dressing, &c. She will be responsible for the order and management of the nursery, the arrangement of meals, &c. The under-nurse will do all the rough work, including cleaning, washing of dishes, carrying coals, and work under the direction of the head-nurse. When the nurse is single-handed and there are several children, she will either require help from the housemaid in the cleaning of her nurseries, or the mother must be prepared to take the children for a certain time each day in order to give the nurse some freedom to do a little washing or cleaning. By this means she ought to be able to get through much useful work.

APPENDIX II

POINTS A MOTHER SHOULD REMEMBER

2 teaspoonfuls	=	1 dessertspoonful
2 dessertspoonfuls	=	1 tablespoonful
2 tablespoonfuls	=	1 fluid ounce
1 teacupful	=	fully 1 gill
1 tumblerful of liquid	=	about $\frac{1}{2}$ pint
1 heaped tablespoonful of solids	=	about 1 ounce
1 teacupful of solids	=	about $\frac{1}{4}$ lb.

MILK MIXTURE.

	Milk.	Water.	Lime-water.	Oatmeal- or Barley-water.	Cream.	Sugar.	Amount.
1st 2 weeks	1 tablespn.	3 tablespn.	2 tablespn.	...	1	1/2 tablespn.	1/2
2nd 2 ,	...	...	...	...	1 ,	1/2 to whole tablespn.	1/2 to 3/4
5th & 6th weeks	2 tablespn.	...	...	...	...	1 tablespn.	1 to whole
7th & 8th ,	3 ,	4 tablespn.	...	...	...	...	3 oz. to whole
9th to 21st week	4 ,	none	...	3 1/2 tablespn.	...	...	4 oz. to 6 oz.
22nd to 28th ,	8 ,	,"	1 tablespn.	4 ,	...	1 1/2 tablespn.	6 oz. to 7 oz.
Last 4 months	12 ,	,"	1 ,	3 ,	...	2 ,	7 oz. to 8 oz.

Normal Pulse: up to end of second year, about 120; after, about 90 beats per minute.

Normal Blood Temperature, 98.4.

COMMON EMERGENCIES

Bleeding: from nose, see under Nose; from cuts, &c., see under Wounds.

Bruises should be treated by the application of cold water compresses (pad made from folded linen or flannel wrung out of cold water) to allay the pain, while the part should be kept at rest, and, if a limb, elevated; when pain disappears, the affected part should be gently rubbed with hazeline morning and evening, until dis-coloration disappears.

Burns, if slight, are best treated first by running warm water over the affected part, or, if more convenient, by putting the child into a warm bath, and then applying a boracic lotion (made by dissolving one part of boracic acid in about thirty of water) dressing. For severe burns apply a boracic lotion dressing and send for a doctor; *do not apply any oily dressing*. When the mouth and throat are burned by the child swallowing boiling water or the like, give from time to time, as required, a teaspoonful of lime-water mixed with cod-liver oil, and call the doctor.

Choking.—Turn the child head downwards and smack it hard on the shoulders or buttocks; if that is not effective, open its mouth, push a thumb well in at the cheek between the gums to hold the mouth open, and, pushing the index finger of the other hand downwards and inwards into the throat, try to get up the obstruction. If the condition appears serious, call a doctor at once.

Convulsions.—Put the child in a hot bath to allay the condition, and consult a doctor in regard to treatment (see p. 66).

Cuts.—See under Wounds.

Dislocations should be treated by putting cotton-wool round the affected joint and bandaging it until the doctor comes to reduce it ; an attempt to put the dislocation back should not be made by an unskilled person, as considerable damage may be done.

Ear.—To remove a foreign body from the ear, syringe out the passage with warm water, pulling the ear back and directing the stream of water along the roof of the passage ; *do not make an attempt to remove anything from the ear passage with a hair-pin or similar implement*, as great harm may easily be done.

Eye.—To remove a cinder or dust particle from the eye pull the eyelids gently apart and wipe away the particle with a wet clean rag ; or, if it cannot be seen then, examine the inner surfaces of the lids—first, by pulling the lower lid well down and examining that, and then, to examine the upper lid, take the eyelashes of the upper lid between the fingers and turn the lid backwards over a flat pencil (or something similar), which is held horizontally across the middle of the lid, wiping the particle away as before.

Fractures are very uncommon in babies, and when they do occur are incomplete ; the affected limb should be bandaged firmly and the doctor sent for ; an attempt to set a fracture should not be made by an unskilled person.

Falls (see under Dislocations, Fractures, &c.).—If the baby seems badly hurt, put it into its cot and send for the doctor.

Nose.—In bleeding from the nose put the child in a sitting or lying position with the head well thrown back, keep it quiet, and apply cold compresses to the forehead and the back of the neck ; if bleeding occurs

frequently a doctor ought to be consulted in regard to the condition.

To remove foreign bodies from the nose, make the child sneeze by tickling the nostril or by giving a little pinch of snuff ; if this is unsuccessful syringe the nose from the other nostril with warm water.

Poisoning.—See the section on Poisons in the body of this book (p. 79).

Scalds.—See under Burns.

Sprains.—Treat by the application of cold compresses to allay pain ; keep the part at rest and bandage it firmly.

Wounds.—To check the bleeding from a wound, apply firm pressure with a compress (*i.e.*, a pad) of dry lint or a clean handkerchief, kept in its place by a bandage. If the wound is dirty, cleanse it thoroughly with warm boracic lotion, washing also the skin around it, and then apply a compress wrung out of boracic lotion ; put dry lint over it, and then keep this dressing in place with a bandage.

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